

X-RAY GENERATION

LIST OF DOCUMENTATION IN THIS BINDER: BuckyDiagnost VE/VT

- ☒ BuckyDiagnost VE/VT
- ☐ Bucky unit sensing / non sensing
- ☐ Measuring chambers
- ☐ GRID DATA SHEET

Note: ☒ indicates document present



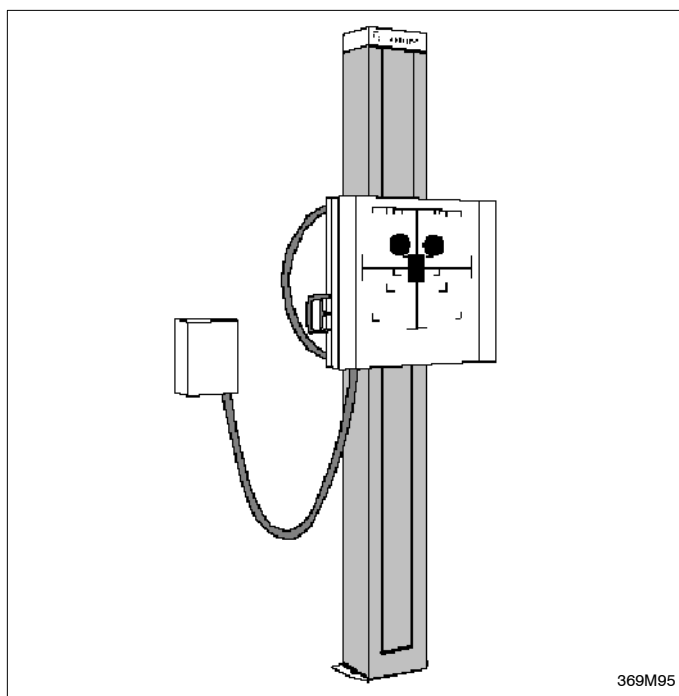
PHILIPS

Philips Medical Systems DMC GmbH

SERVICE MANUAL 704 UNIT

BuckyDiagnost VE/VT

9890 010 06511
9848 500 29301
9848 500 29401



Stand with vertical bucky-carriage.
For fixation on floor and wall, or, by means of a device,
for fixation on the floor only.

DMC Hamburg

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SERVICE MANUAL - UNIT**bucky DIAGNOST VE/VT**

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Type No: 9890 010 06511

Techn. No: 9848 500 29301

Techn. No: 9848 500 29401

In case there are any questions concerning this manual,
please send this LOPAD via fax to 49/(0)40/5078 2481

File:bucky DIAGNOST VE/VT 52355AC

List of pages and drawings (LOPAD)

Manual Order No: 4512 980 52355
released: 02/2004

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INTRODUCTION AND TECHNICAL DATA

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1. Introduction

Counter-balanced bucky carriage, vertical travel from 370 to 1900 mm above floor. Front panel provided with flat section locking rails and indication of AMPLIMAT measurement fields, film sizes and centre. For both left-hand and right-hand operation.

2. Compatibility

Bucky DIAGNOST VE **9848 500 29301 and**
Bucky DIAGNOST VT **9848 500 29401**

are compatible with:

- bucky frame	9804 609 51102
with cassette tray non sensing	9804 609 60202
to be connected via release adapter	4512 130 56941
or cassette tray sensing	9804 609 60302
to be connected via release adapter	4512 130 56941
and sensing adapter	4512 130 56951
- Bucky unit non sensing left	9848 500 20301
- Bucky unit non sensing right	9848 500 35701
- Bucky unit sensing left	9848 500 20401
- Bucky unit sensing right	9848 500 35801
- Automatic cassette loader ACL	9848 500 29101
- Oscillating grid 36/12, 35X43cm, F0180cm	9860 836 11185
- Oscillating grid 36/12, F0100cm	9860 836 90101
- Oscillating grid 36/12, F0130cm	9860 836 90131
- Oscillating grid 36/12, F0140cm	9860 836 90141
- Oscillating grid 40/12, F0110cm	9860 846 90111
- Oscillating grid 40/12, F0140cm	9860 846 90141
- Oscillating grid 40/12, F0170cm	9860 846 90171
- AMPLIMAT chamber	9890 000 01611
- Device for floor fixation	9890 010 02101
- Spacer (only for VE)	9890 010 02121
- Accessories for flat section locking rails	
- Patient armrests and patient stretching rest	9890 010 02111
- Babix suspension gear	9890 010 02771
- Adaptation set tracking	9848 500 20201

3. Technical data

3.1. Dimensions

- Mechanical dimensions bucky DIAGNOST VE	2Z-1 / 2Z-2
- Mechanical dimensions bucky DIAGNOST VT	2Z-3 / 2Z-4

3.2. Electrical data

Operating voltage

- 24 V DC, 100 mA via release cable from the generator for the bucky unit
- 220 V AC, 3 A (for the automatic cassette loader ACL only)

3.3. Environmental conditions

According to PMS standard UXN 13600 class C1 (indoor temperature controlled)

- During regular work:

Temperature: 10 °C to 40 °C
 Humidity: 20 % to 80 %
 Air pressure: 700 to 1100 hPa

- During transport:

Temperature: -25 °C to +70 °C
 Humidity: 5 % to 95 %
 Air pressure: 700 to 1100 hPa

4. Measurements and weights

Measurements	With shipping box	Without shipping box
bucky DIAGNOST VE	235 / 80 / 85 cm	223 / 62.5 / 42.5 cm
bucky DIAGNOST VT	235 / 80 / 85 cm	223 / 62.5 / 42.5 cm

Weights	With shipping box	Without shipping box
bucky DIAGNOST VE	240 kg	160 kg (170.2 kg)*
bucky DIAGNOST VT	285 kg	205 kg

* with spacer

Options:

- Device for floor fixation (support triangle): 12,5 kg
- Spacer: 5,1 kg

5. Scope of delivery

Standard:

- Column with counterweight and bucky frame including fixing material for wall- and floor-fixing.
- Wall connection box with corrugated hose and cables from bucky unit to the wall connection box and fixing material for wall connection box.

Options:

- Support triangle for installation without wall including fixing material.
- Accessories includes:
 - Patient armrests
 - Patient stretching rest
- Spacer (only version VE)
- High distance measurement device

The columns will be supplied with the brake handle at the left hand side.

It is possible to exchange the handles in the field if necessary. The procedure of exchanging the handle will be described in section F.

6. Site preparation

6.1. Mechanical data

The mounting points on mounting surface have to be suitable for tensile strength of 2400 N each (concrete class B 150 DIN 1045 or other national requirements, if the supplied fixing material will be used).

The fixing drillings have to be inserted as shown in drawings 2Z-1, 2Z-2, 2Z-3 or 2Z-4.

If the option "support triangle" for installation without wall is state of delivery the required fixing material will be supplied also.

6.2. Electrical data

The column will be supplied with a wall connection box, a corrugated hose and cables from bucky unit to the wall connection box. At the bucky unit side the cables are equipped with AMP-decade plugs to connect them to the bucky unit. At the wall connection side the cables are equipped with 9-pins D-Sub-plugs. The release cable will be equipped with a male plug. The sensing cable will be equipped with a female plug. To connect the cables from the installation side a bag with plugs and plug-cases will be supplied with the system. For the AMPLIMAT measurement cable a AMP 3+ plug will supplied.

7. Tools

Service standard toolkit.

8. Test equipment

Spirit level.

INSTALLATION TEXT

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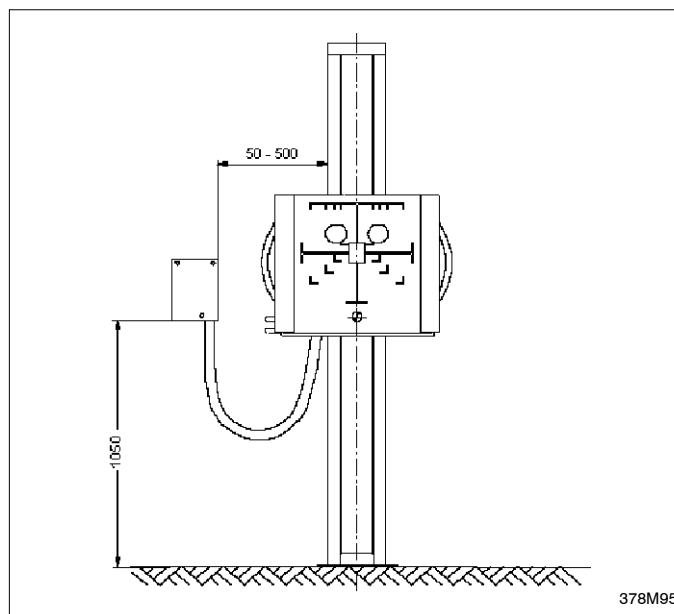
1. General

- Unpack the parts and check that all parts are not damaged.

The column will be supplied completely installed as ordered. Only in case the bucky unit is not installed or the handles have to be changed from left-hand side operation to right-hand side operation see section 3 of this manual.

The red painted parts are used as transport safeguard and will not be used for normal operation.

The wall fixing angle (1) is used as transport angle. The inserted screws are only for transport and must be removed for the installation. If the installation is without wall the angles (1) and (2) will not be used.

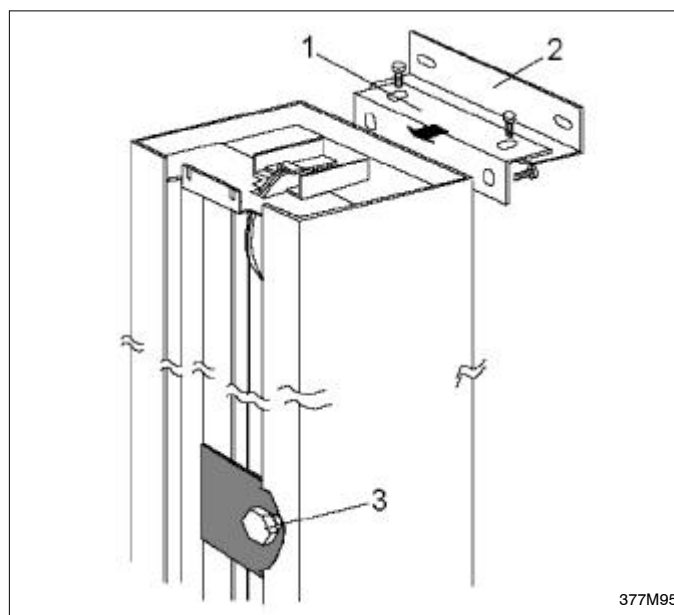


2. Installation wall mounted

- Exchange the screws at angle (1) for 2 sockethead cap screws with washers (accessories: bag 3).
- Screw the wall fixing angle (2) and the angle (1) together with 2 sockethead cap screws M8x12 and washers (accessories: bag 4).
- Move the bucky unit to the lowest position until the rope is tense.
- Bring the column to the vertical position.
- Align the column to the middle of the axis of the table.

Use a plummet dropped from the ceiling as a reference point.

- Swing the tube housing assembly towards the column.
- Switch on the field illuminator and check the alignment.
- Move the ceiling suspension by 1 m in longitudinal direction.



The migration of the cross-hairs with attention to the vertical line of the bucky unit must not exceed 1.5 mm.

- Align the column rectangular with respect to the beam axis.

Check with a mirror.

- Mark the holes at the floor and drill the holes for the supplied 12 mm dowels (accessories: bag 4).
- Fix the column at the floor with the screws and washers supplied with the dowels (accessories: bag 4).

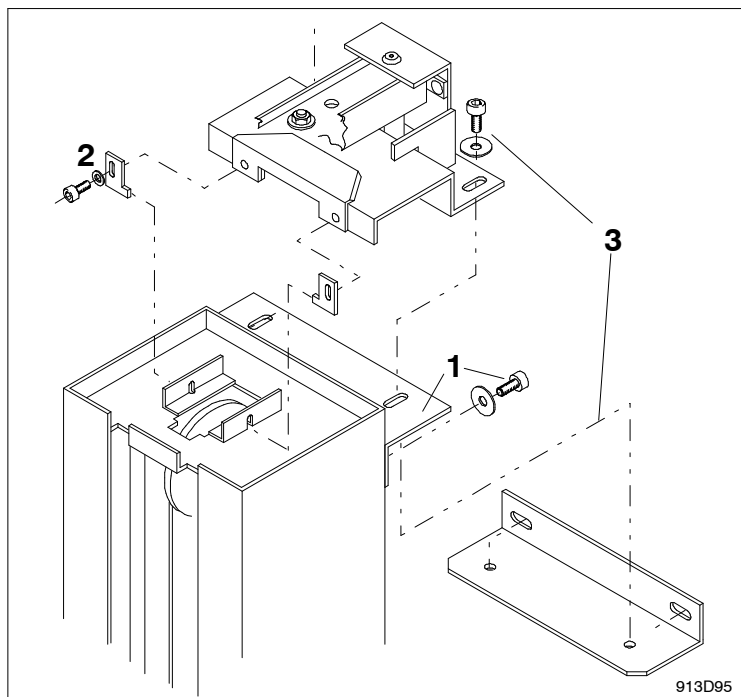
Warning!

Secure the column against tilting.

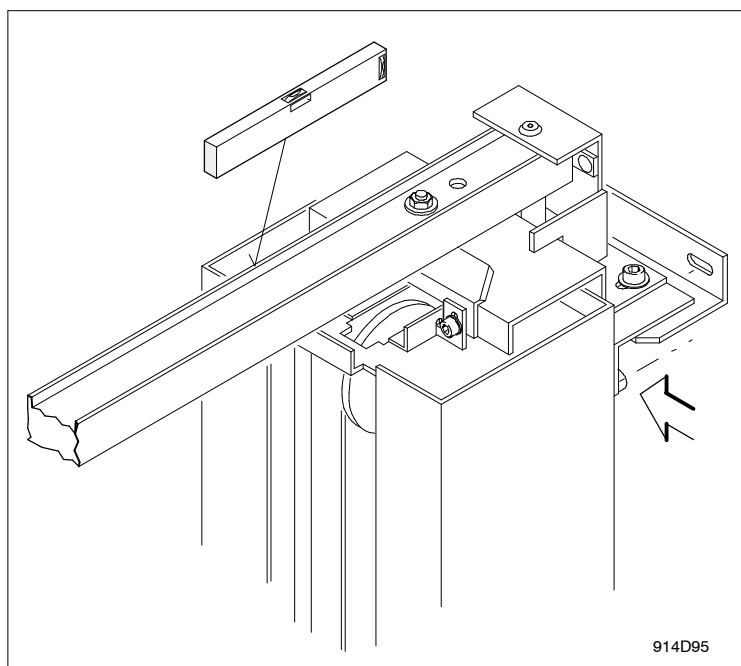
Note

Before drilling the holes for the wall fixing, the BABIX suspension gear (option) has to be installed:

- Attach the BABIX suspension gear to the top of the column as shown in the drawing.



- Loosen the screws of the wall angle just a little.
- Adjust the arm for a horizontal position with the use of spirit level.
- Tighten the screws of the wall angle.



- Mark the holes at the wall and drill the holes for the supplied 10 mm dowels (accessories: bag 4).
- Fix the column at the wall with 2 hexagon screws and washers (accessories: bag 4).

Do not fasten the screws completely.

- Level the column with a spirit level.
- Fasten all bolts.
- Remove the transport safety screw (3) and sheet from the counterbalance.

Keep the screw and the sheet for maintenance.

- Check the easy movement of the bucky unit.
- Install the wall connection box.
- Mark the 3 holes at the wall and drill the holes for the supplied 8 mm dowels (accessories: bag 4).
- Fix the wall connection box to the wall with 3 screws and washers (accessories: bag 4).

The connection of the cables is described in this manual in section Plug and cable connections.

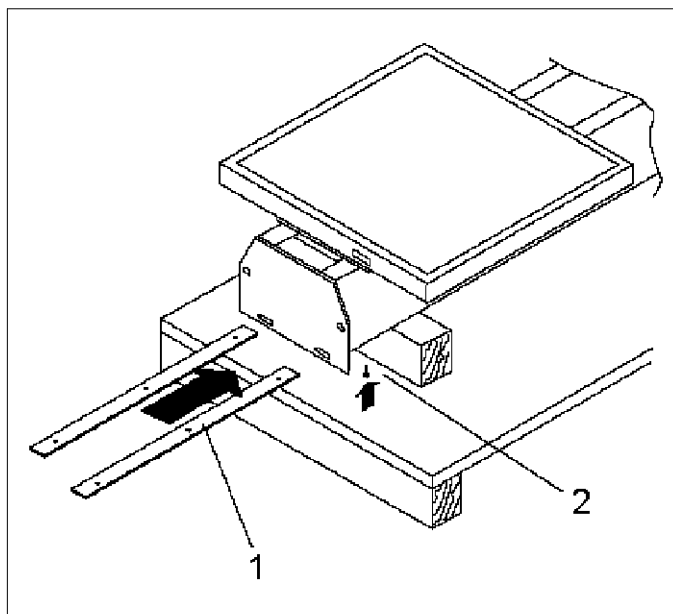
3. Installation free standing

- Insert the nut-lines (1) at the diagonal edge first and fix each with a bolt (2) (accessories: cardboard triangle).
- Move the bucky unit to the lowest position until the rope is tense.
- Bring the column to the vertical position.
- Align the column to the middle of the axis of the table.

Use a plummet dropped from the ceiling as a reference point.

- Swing the tube housing assembly towards the column.
- Switch on the field illuminator and check the alignment.
- Move the ceiling suspension by 1 m in longitudinal direction.

The migration of the cross-hairs with attention to the vertical line of the bucky unit must not exceed 1.5 mm.



- Align the column rectangular with respect to the beam axis.

Check with a mirror.

- Mark the holes at the floor and drill the holes for the supplied 12 mm dowels (accessories: bag 4).
- Fix the column at the floor with the screws and washers supplied with the dowels (accessories: bag 4).

Warning: Secure the column against tilting.

- Install the sheet with cable conduit (1) and connection box (2)
- Install the support triangles (3) at the rear side of the column by fixing it to the nut-lines (accessories: cardboard triangle).

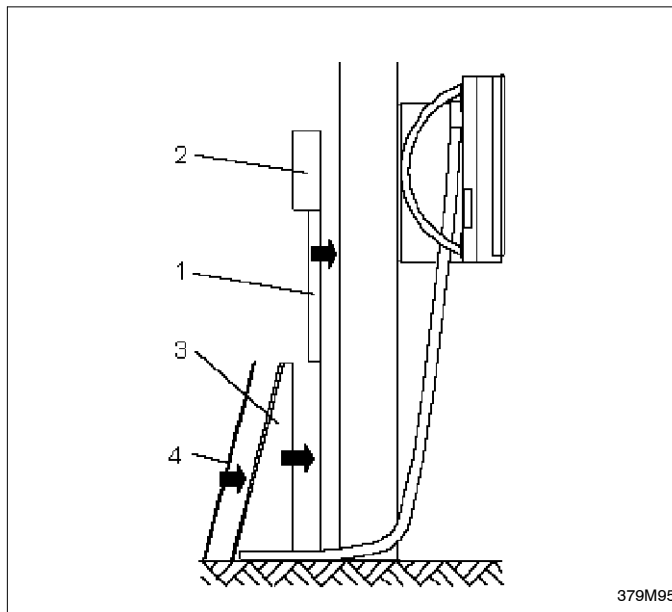
Do not fasten the screws completely.

- Mark the holes at the triangle on the floor and drill the holes for the supplied 8 mm dowels (accessories: cardboard triangle).
- Fix the triangle at the floor with the screws supplied with the triangle.
- Level the column with a spirit level.
- Fasten all bolts.
- Remove the transport safety screw and sheet from the counterbalance (Fig. 377M94 / Pos.3).

Keep the screw and the sheet for maintenance.

- Stick the connection box to the column with the double side tape (installed at the rear side of the box).
- Lay the cable to the connection box.
- Install the cover on the triangles (4).
- Check the easy movement of the bucky unit.

The connection of the cables is described in this manual in section Plug and cable connections.



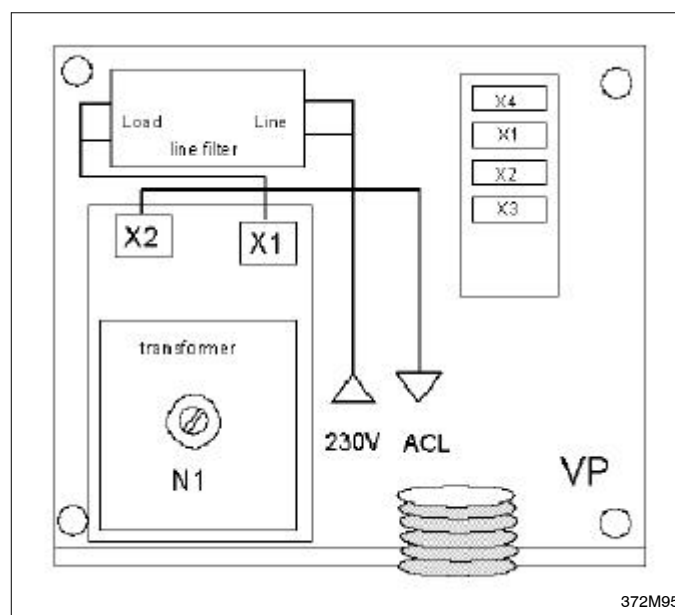
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4. Electrical connections

4.1. Installation of the power supply ACL

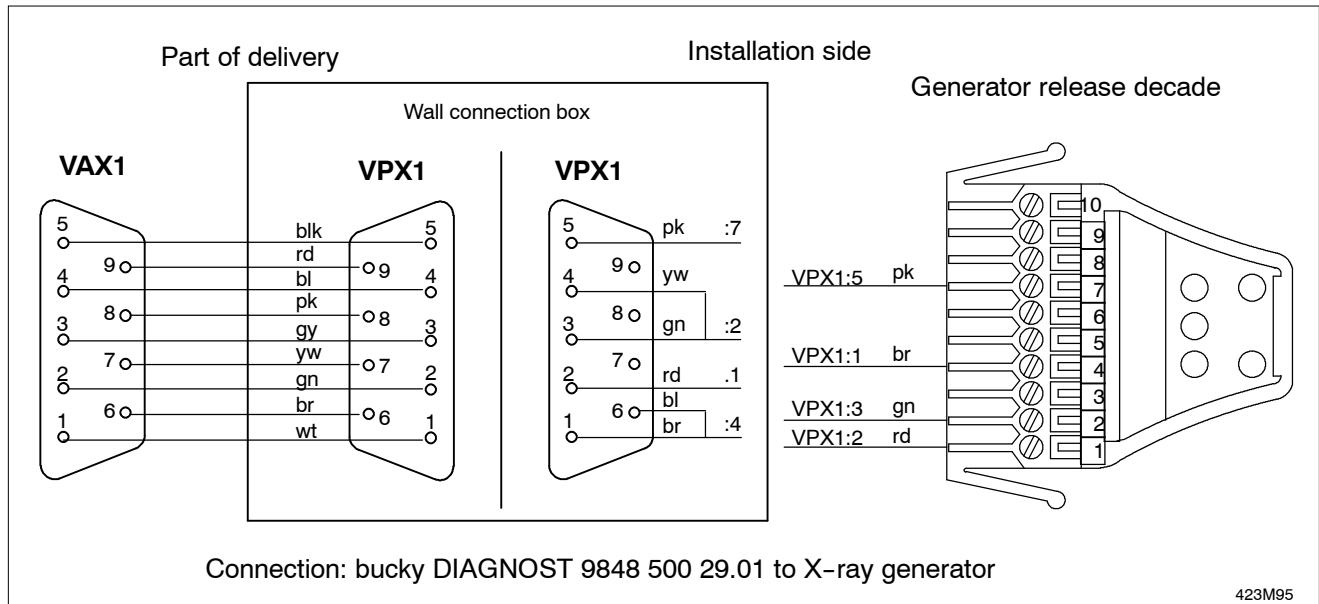
If a bucky unit with automatic cassette loader is supplied, the power supply incl. line filter has to be installed in the wall connection box.

- Install the power supply.
- Install the line filter.
- Connect the supplied mains cable with plugs to the line filter.
- Connect the cable (X2) for power supply of the automatic cassette loader.

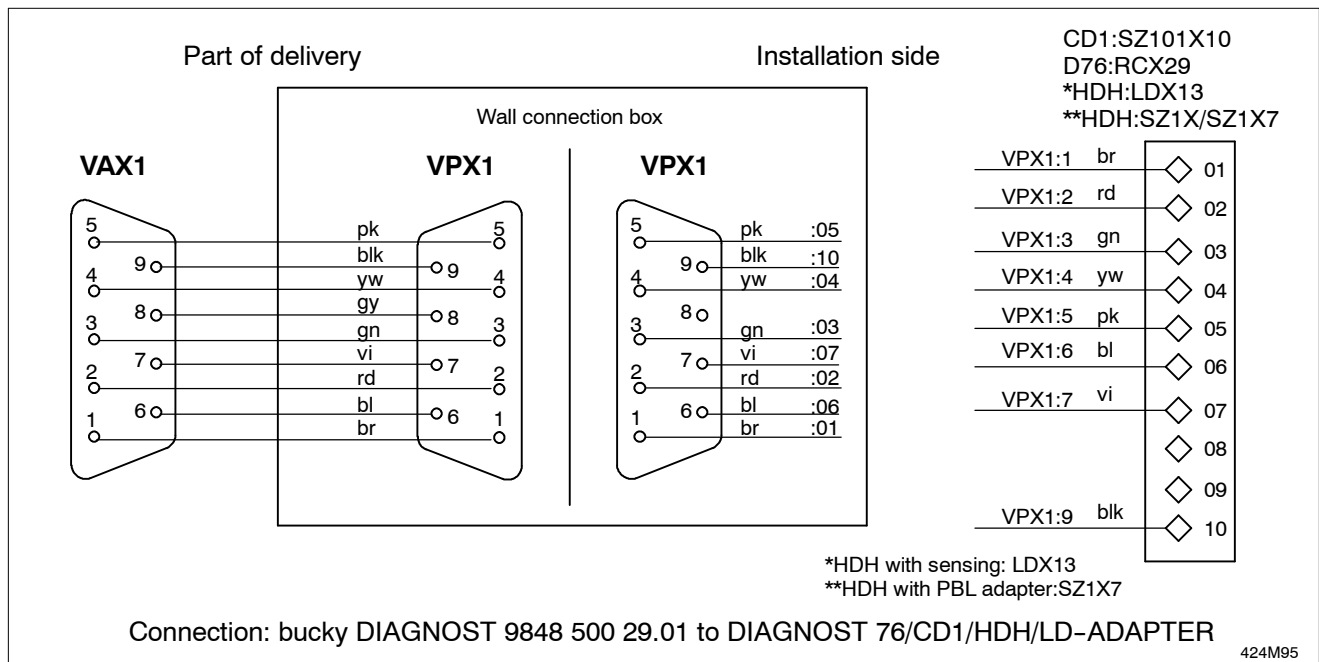


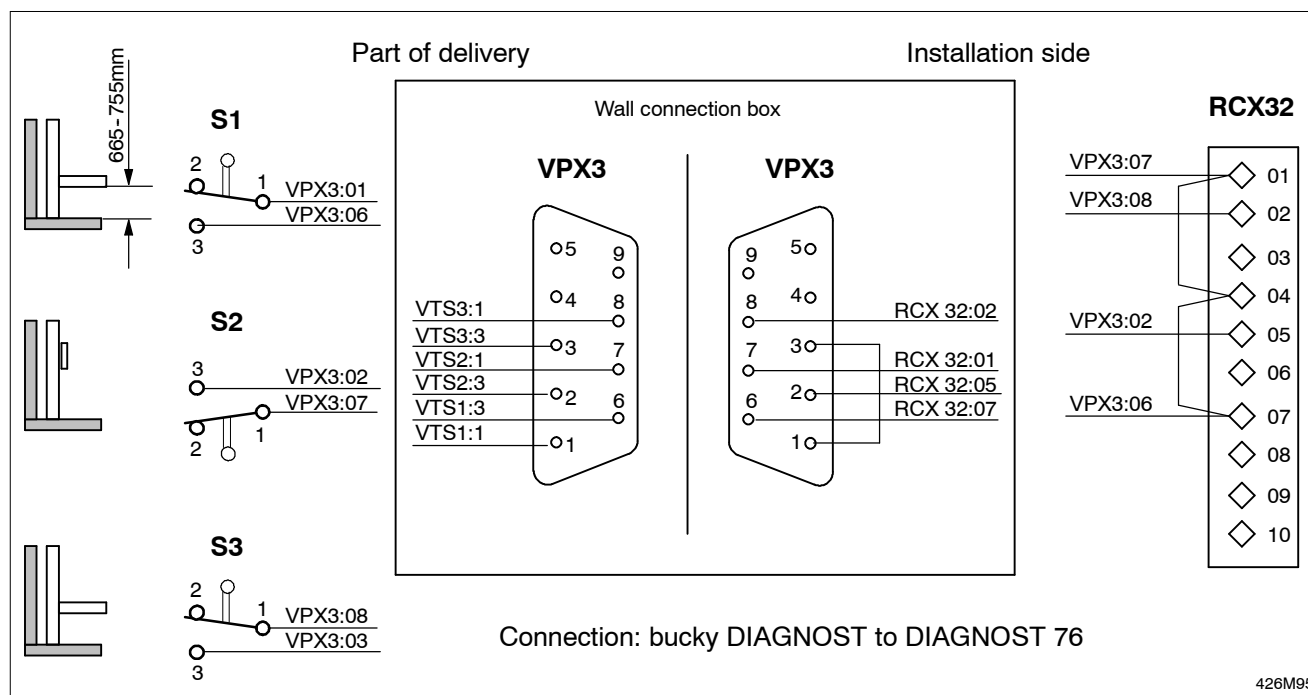
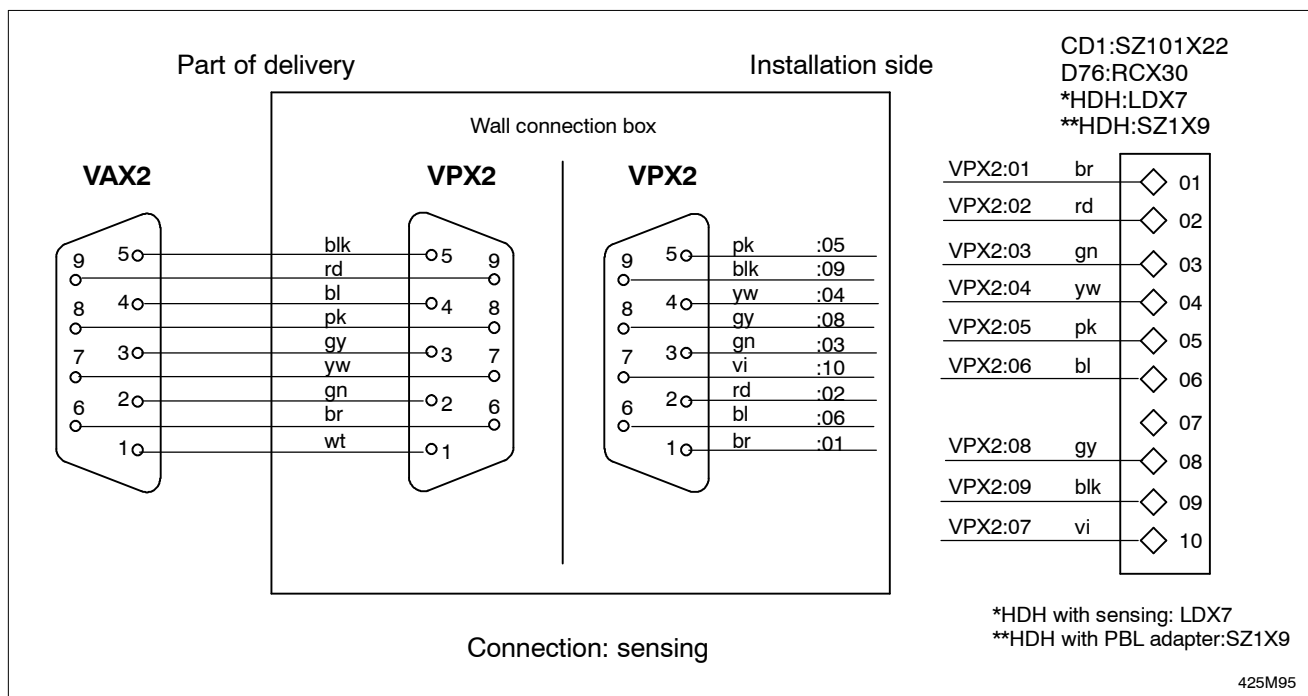
4.2. Plug and cable connections

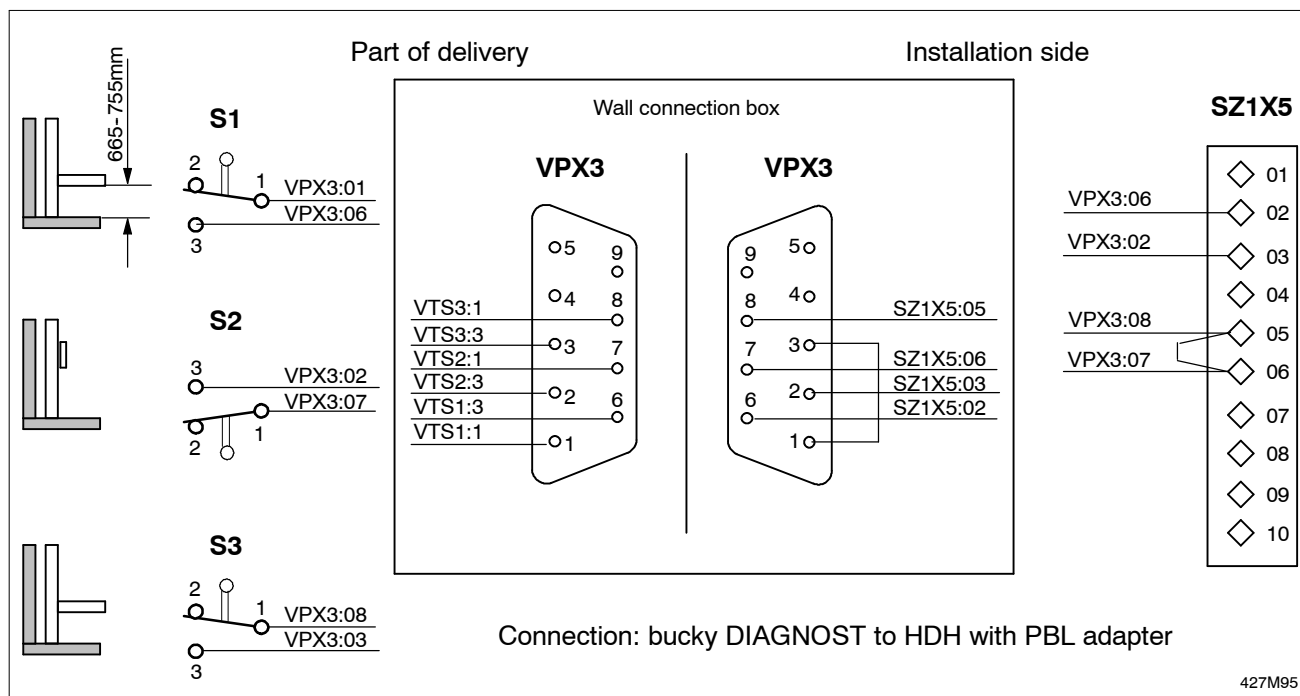
If the bucky DIAGNOST is not supplied completely pre-installed a bag with D-Sub plugs, male- and female-pins will be supplied with the system. The plugs VPX1 and VPX2 have to be soldered during the installation. Depending on the system supplied (DIAGNOST 76 Plus or HDH) the plug VPX3 has to be soldered differently (see sketches below).



To connect bucky DIAGNOST with Inalfa bucky module to generator OPTIMUS refer to schematic diagram Z1-5.







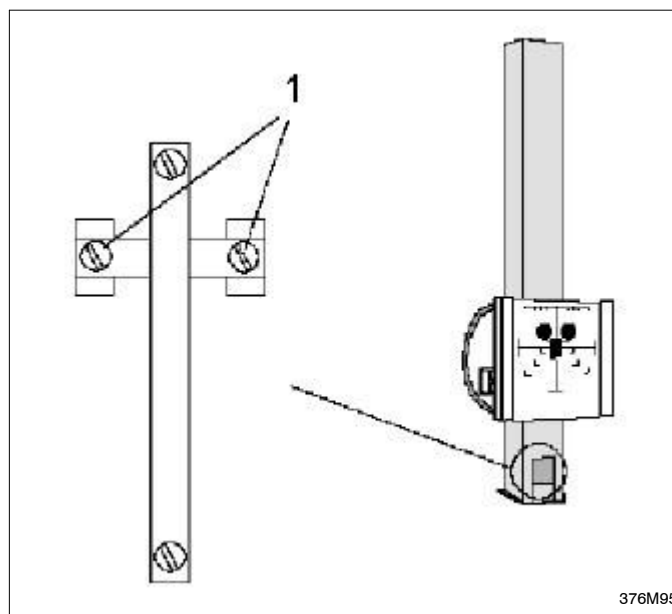
4.3. Connection of bucky DIAGNOST VE/VT with bucky DIAGNOST TH

For connection of bucky DIAGNOST VE/VT with bucky DIAGNOST TH refer to drawing Z2-1.

5. Switch adjustment (VT)

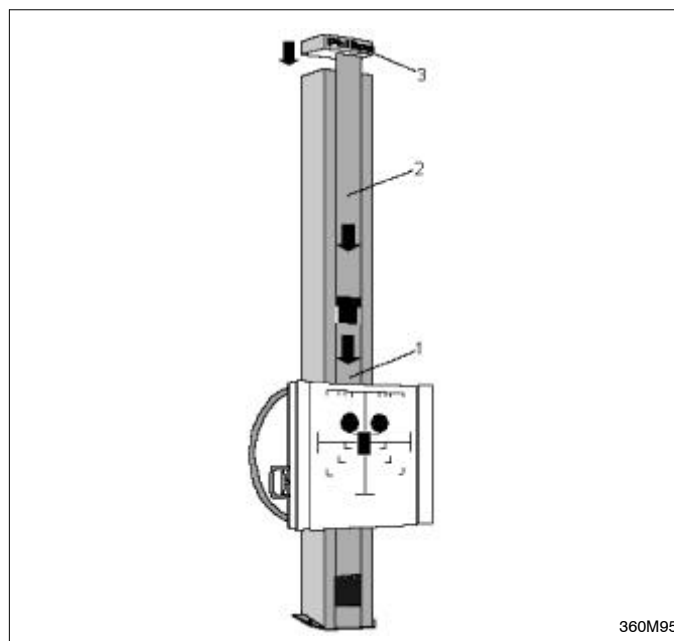
In 90° position the bucky unit should be adjusted to the same floor distance as the bucky unit in the table.

- Tilt the bucky unit to the 90° position and adjust the floor distance (VPS1) at the switch element (1).



6. Installation of the covers

- Insert the lower cover (1) through the polyamide guides at the carriage and push it into the support.
- Insert the top cover (2) into the guide bolts and fasten the nuts at the stay bolts on the top.
- Install the top cover panel (3) with Philips brand name.



7. Installation of the patient armrests

The patient armrests are not part of standard delivery.

If supplied:

- Install the armrests to the left and right hand side of the bucky unit with 2 screws each.

8. Installation of the patient stretching rest

The patient stretching rest is not part of standard delivery.

If supplied:

- Install the stretching rest to the left or right hand side of the bucky unit.

9. Installation of additional counterbalances

The column is completely weight compensated, if the patient armrests and the patient stretching rest are part of delivery.

In case of installing the patient armrests and the patient stretching rest later the additional counterweights have to be removed.

Version VE:

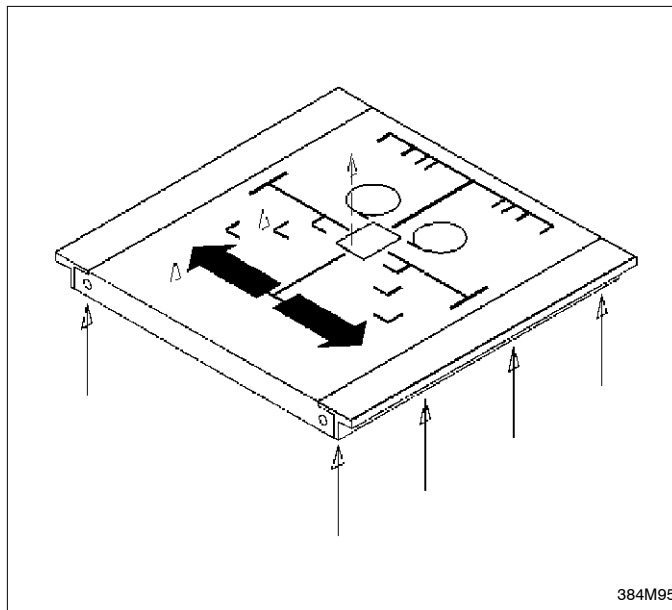
To remove the 4 additional counterweights the bucky unit has to be re-installed first (see section 3).

- Remove the additional counterweights (4) and install the bucky unit again.

Version VT:

The counterweights are placed in the lengthwise carrier (4) opposite side of the brake handle.

- Open the cover at the lengthwise carrier and remove the additional counterweights .



10. Finishing work

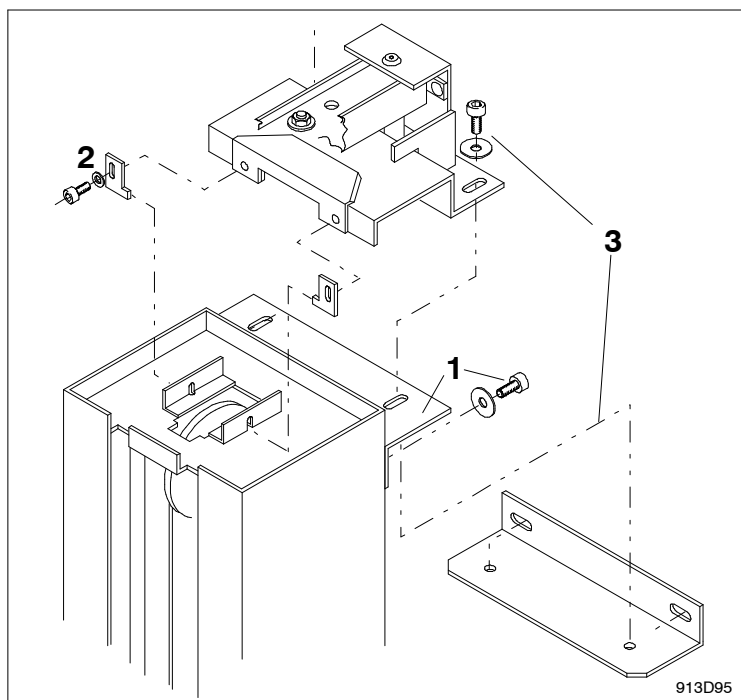
- Check all functions of the bucky DIAGNOST VE/VT.

11. Labels

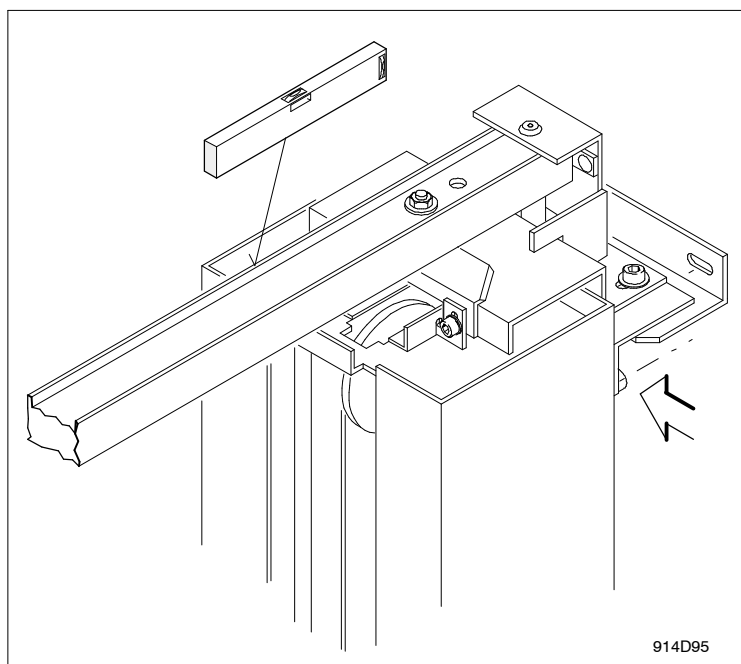
- Check the labelling (see drawing 2Z-10).

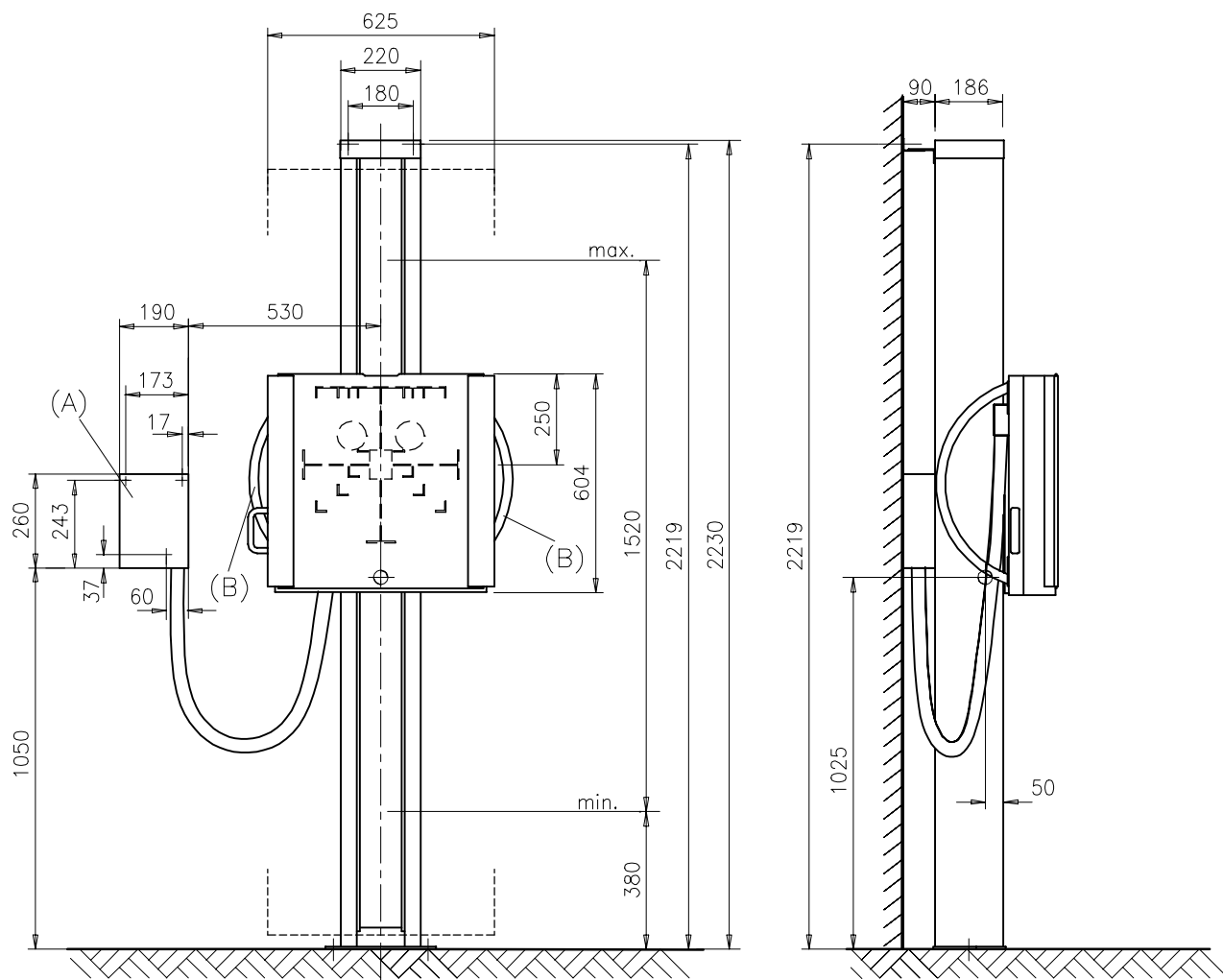
12. Attachment of BABIX suspension gear

- Attach the BABIX suspension gear to the top of the column as shown in the drawing.



- Loosen the screws of the wall angle just a little.
- Adjust the arm for a horizontal position with the use of spirit level.
- Tighten the screws of the wall angle.



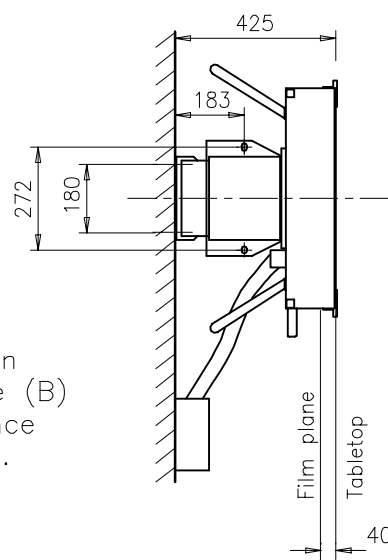


measurements in mm scale 1:20

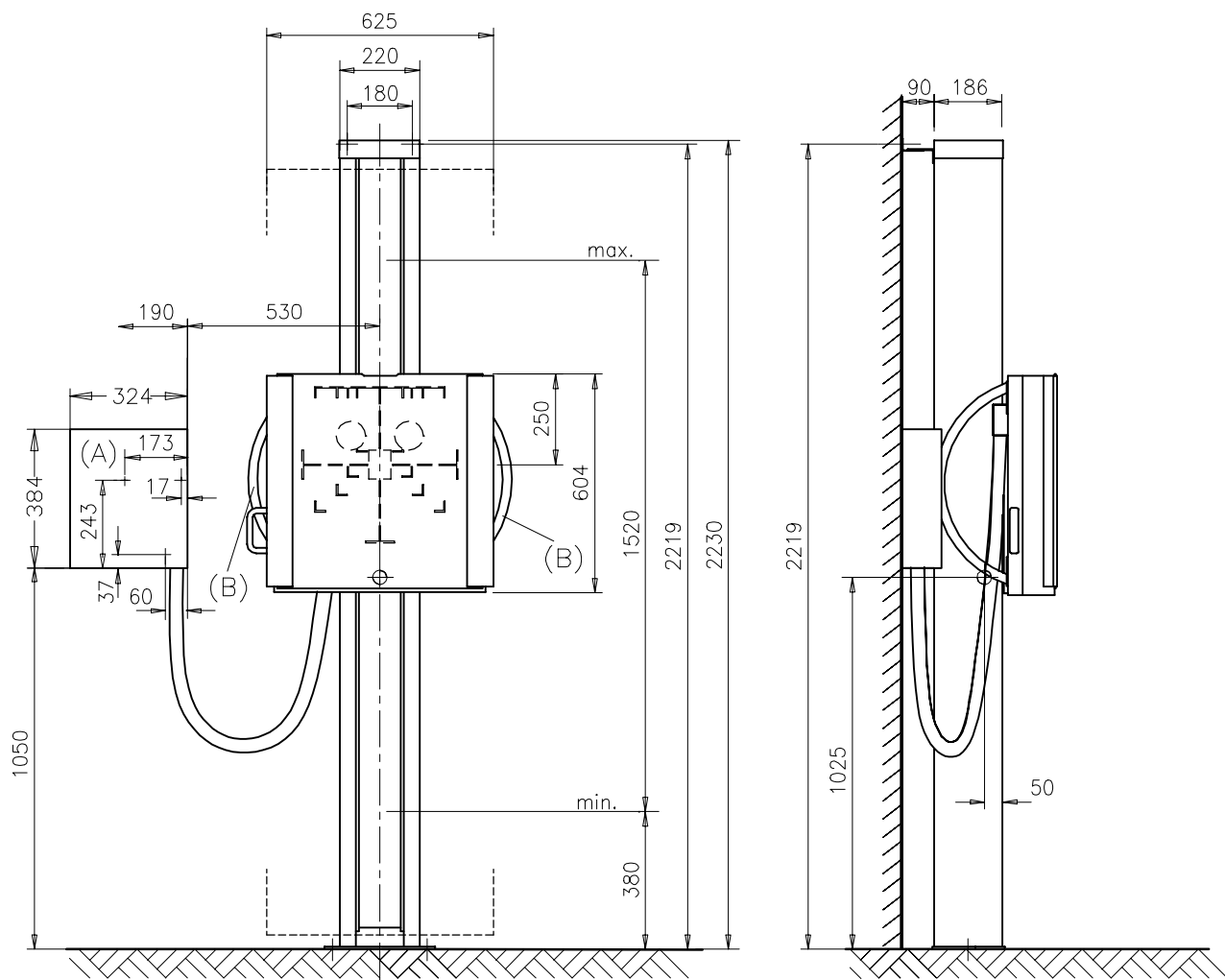
(B) = Option

WARNING:

Make sure there is enough distance between the wall connection box (A) and the handle (B) of the bucky. If there is not enough distance injury may occur when the bucky is moved.



bucky DIAGNOST VE
Wall mounted version
Mechanical dimensions

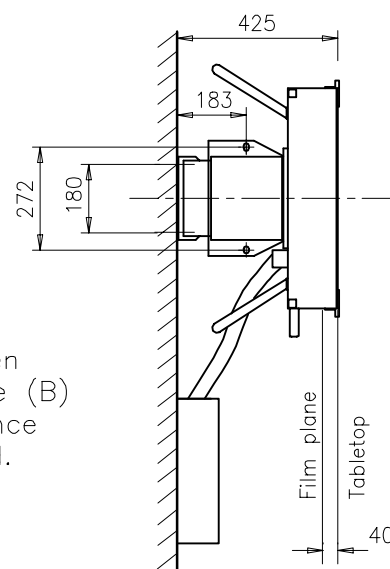


measurements in mm scale 1:20

(B) = Option

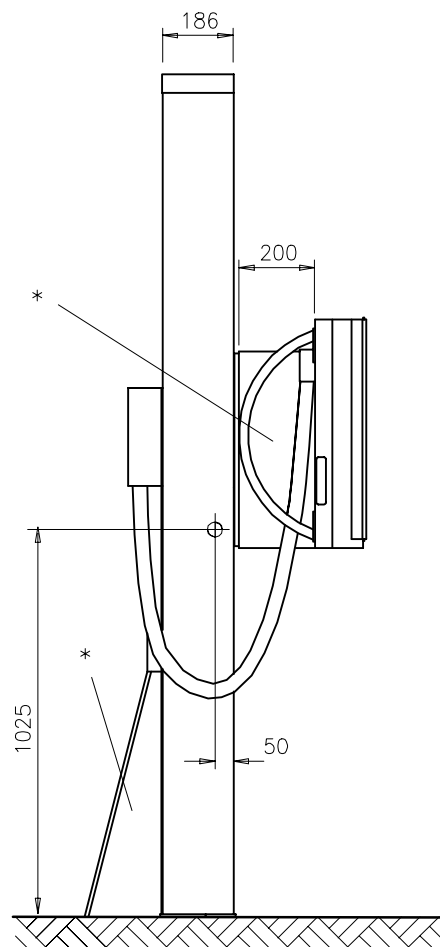
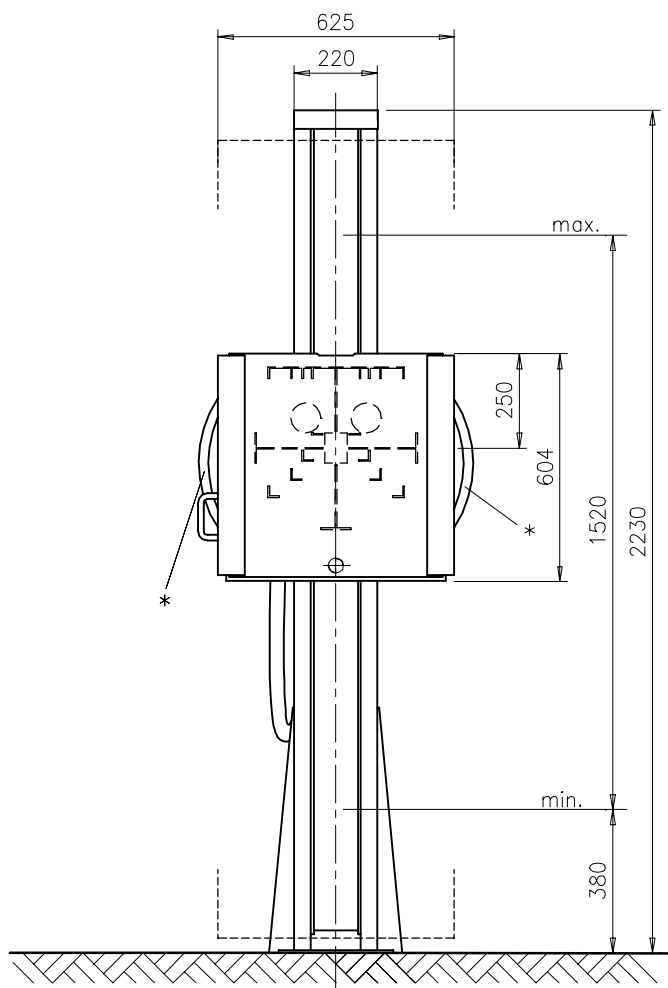
WARNING:

Make sure there is enough distance between the wall connection box (A) and the handle (B) of the bucky. If there is not enough distance injury may occur when the bucky is moved.



bucky DIAGNOST VE
Segment control unit
Wall mounted version
Mechanical dimensions

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00721z12

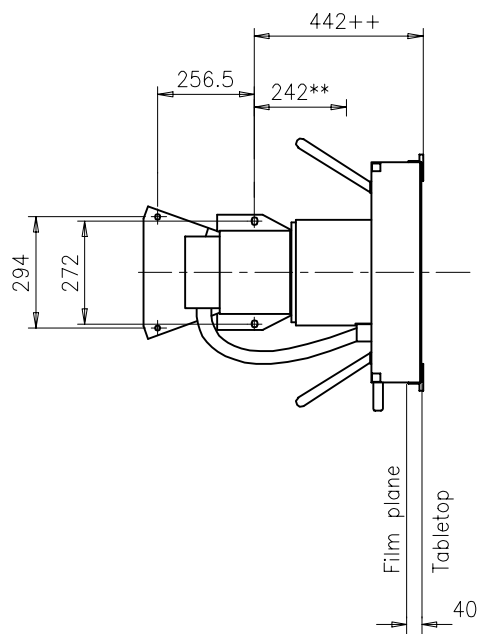


measures in mm scale 1:20

* = Option

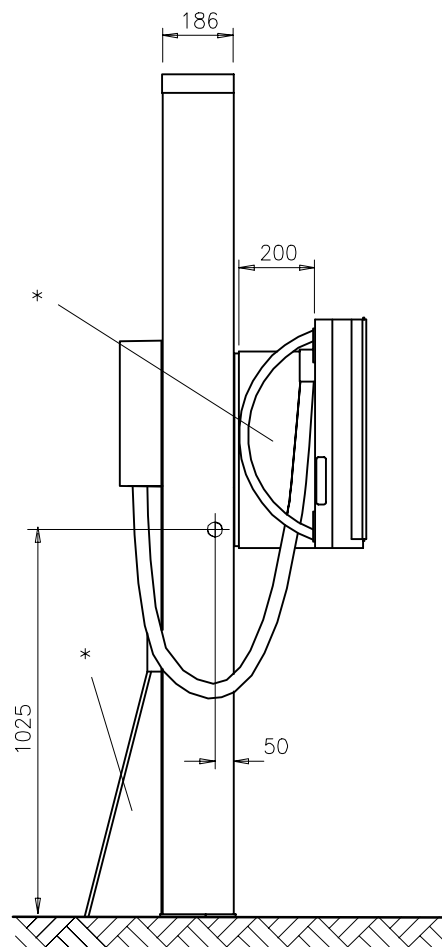
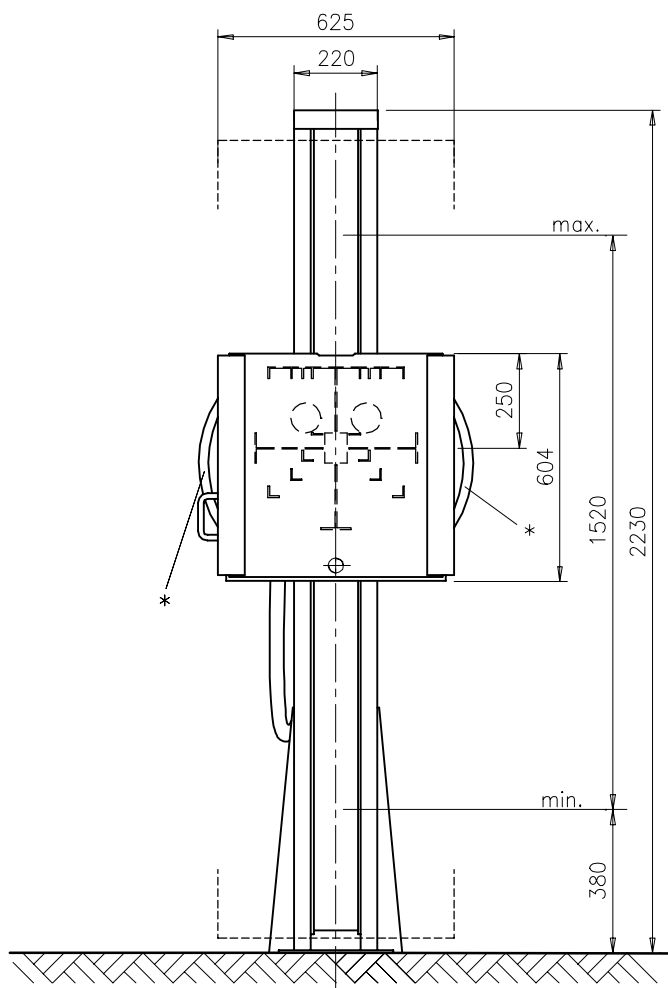
** = distance without spacer

++ = distance with spacer



bucky DIAGNOST VE
Stand alone version
Mechanical dimensions

A4 00-06-27 Ost.
00721z13

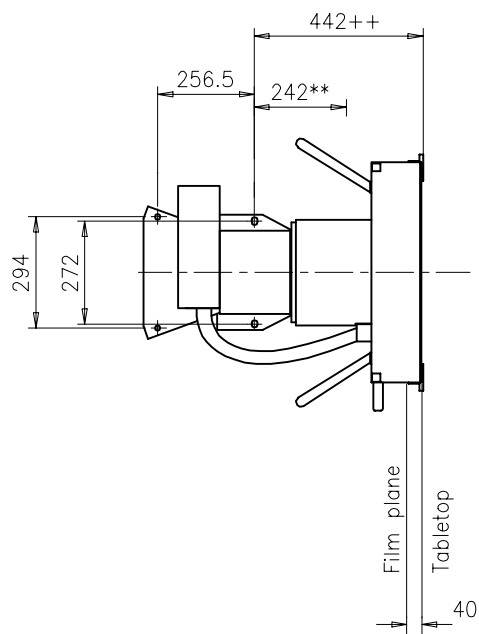


measures in mm scale 1:20

* = Option

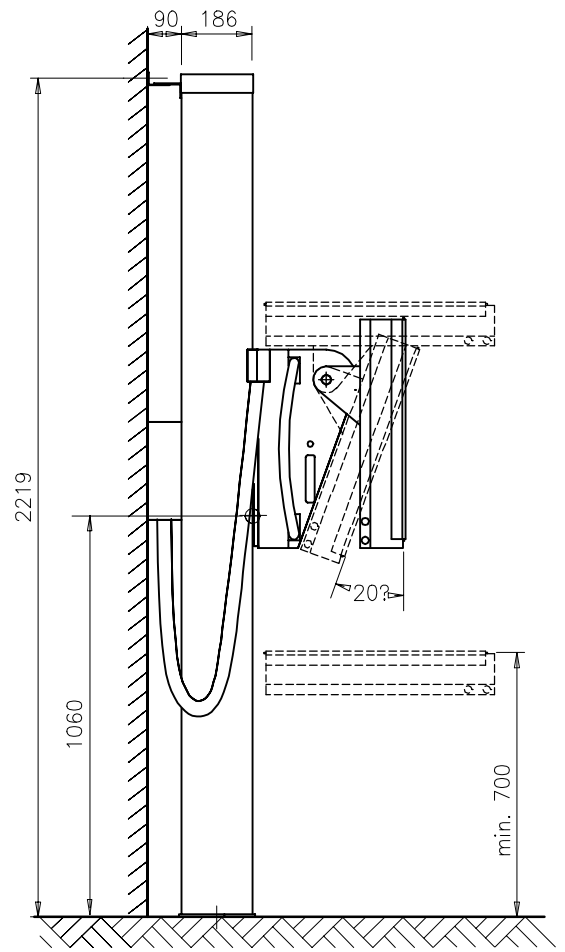
** = distance without spacer

++ = distance with spacer



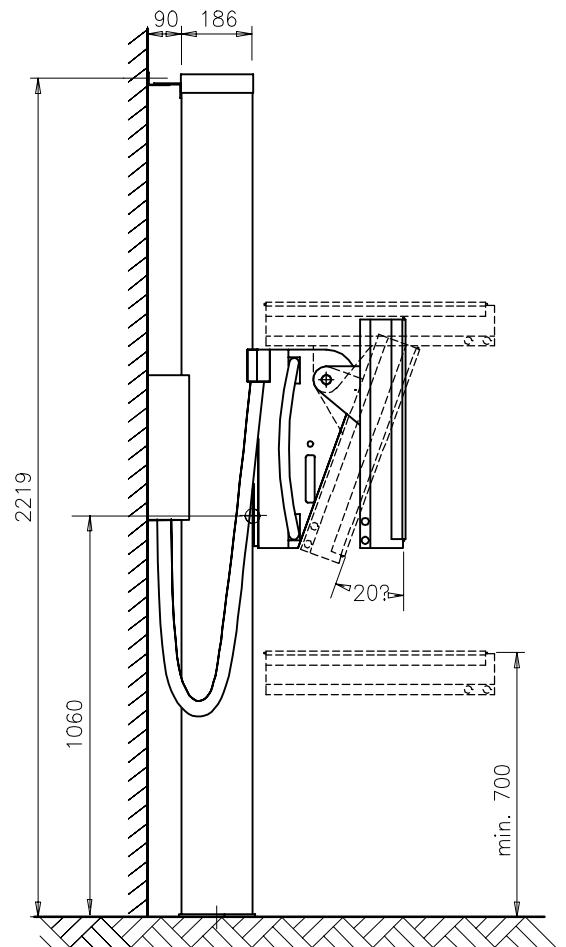
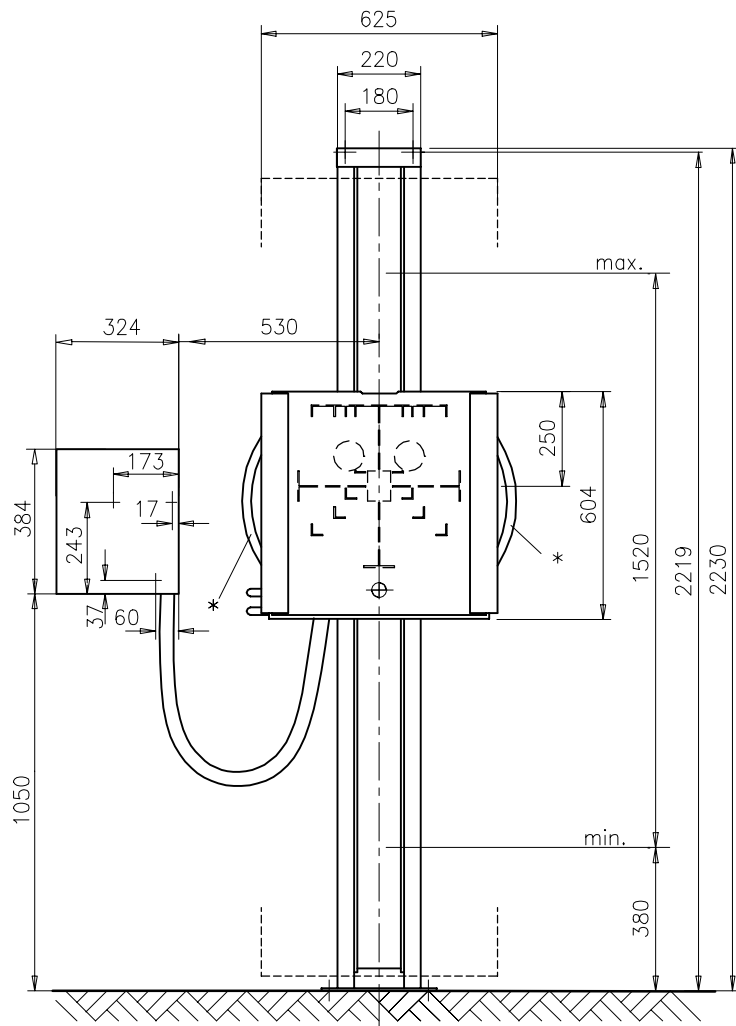
bucky DIAGNOST VE
Segment control unit
Stand alone version
Mechanical dimensions

A4 00-06-27 Ost.
00721z14



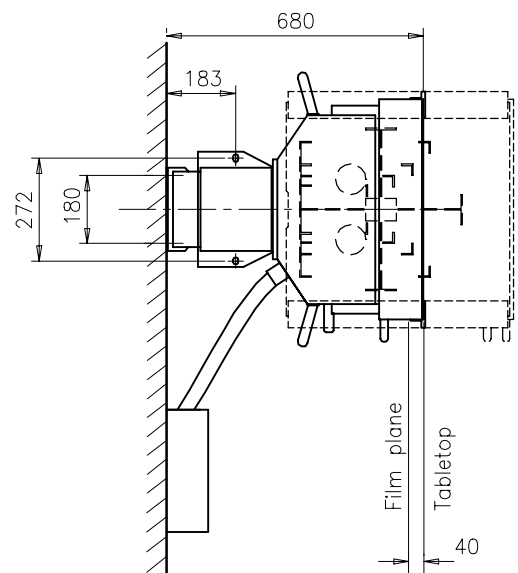
* = Option





measures in mm scale 1:20

* = Option



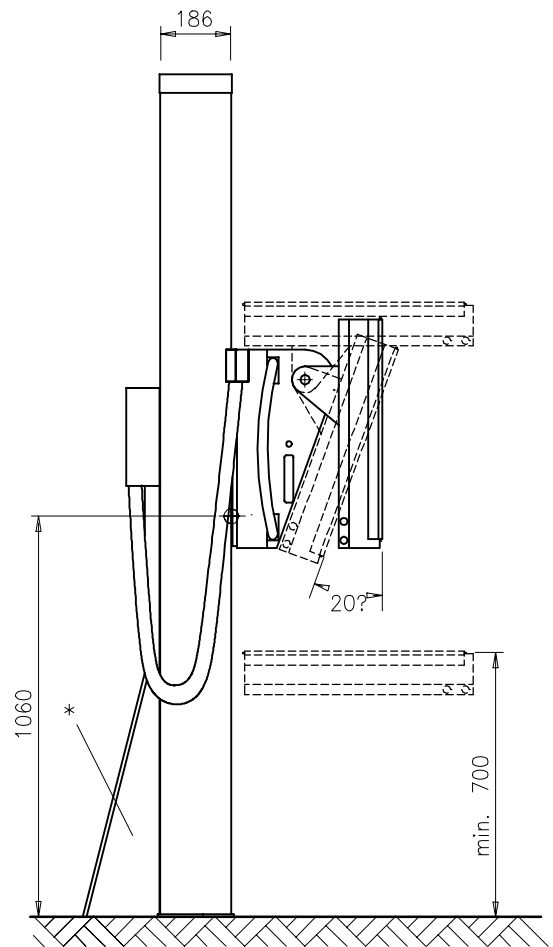
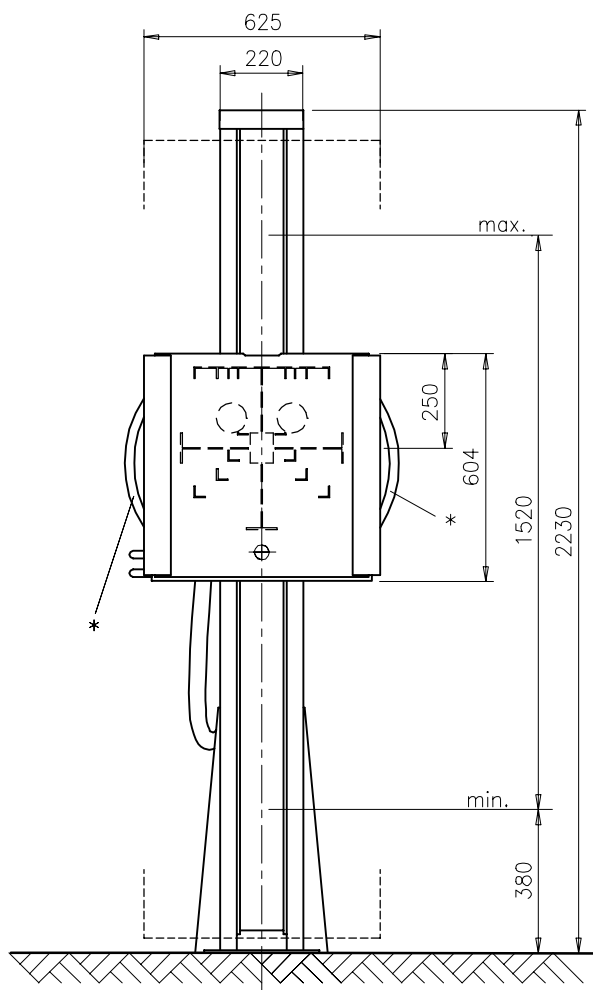
bucky DIAGNOST VT
Segment control unit
wall mounted version
Mechanical dimensions

A4 00-06-27 Ost.
00721216

bucky DIAGNOST VE/VT (00.1)

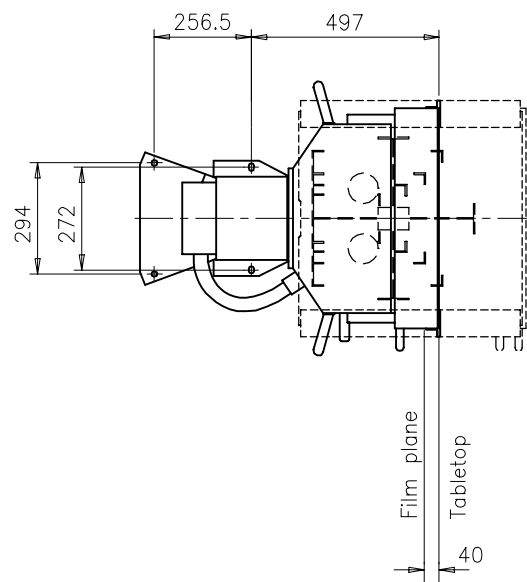
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2Z-3.2



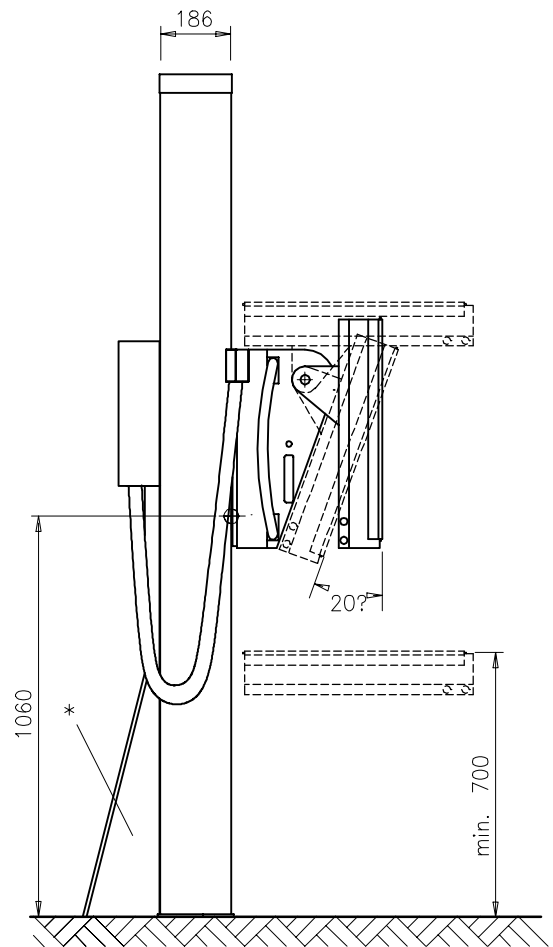
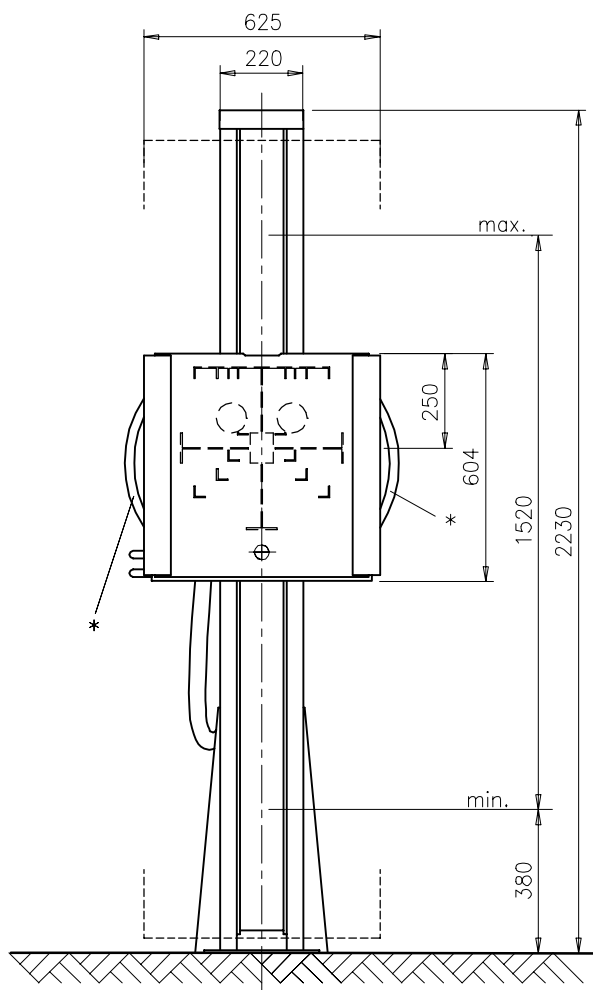
measures in mm scale 1:20

* = Option



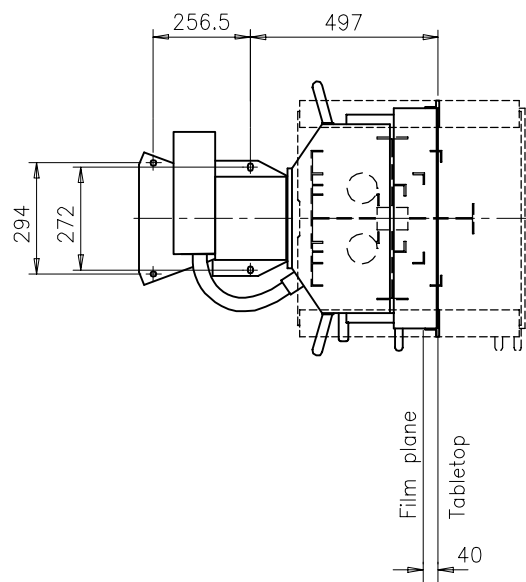
bucky DIAGNOST VT
Stand alone version
Mechanical dimensions

A4 00-06-27 Ost.
00721z17



measures in mm scale 1:20

* = Option



bucky DIAGNOST VT
Segment control unit
Stand alone version
Mechanical dimensions

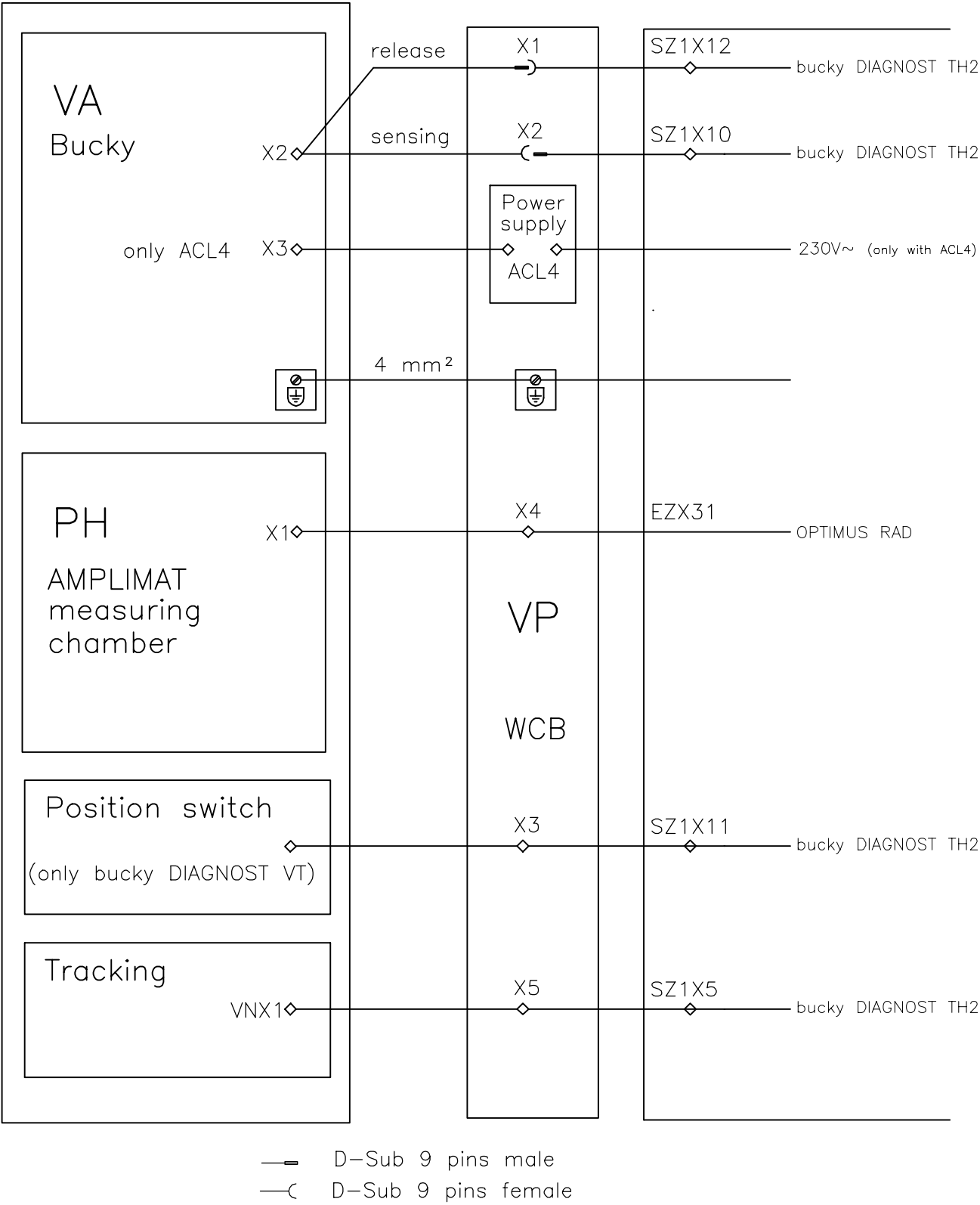
A4 00-06-27 Ost.
00721z18

bucky DIAGNOST VE/VT (00.1)

© Philips Medizin Systeme
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2Z-4.2

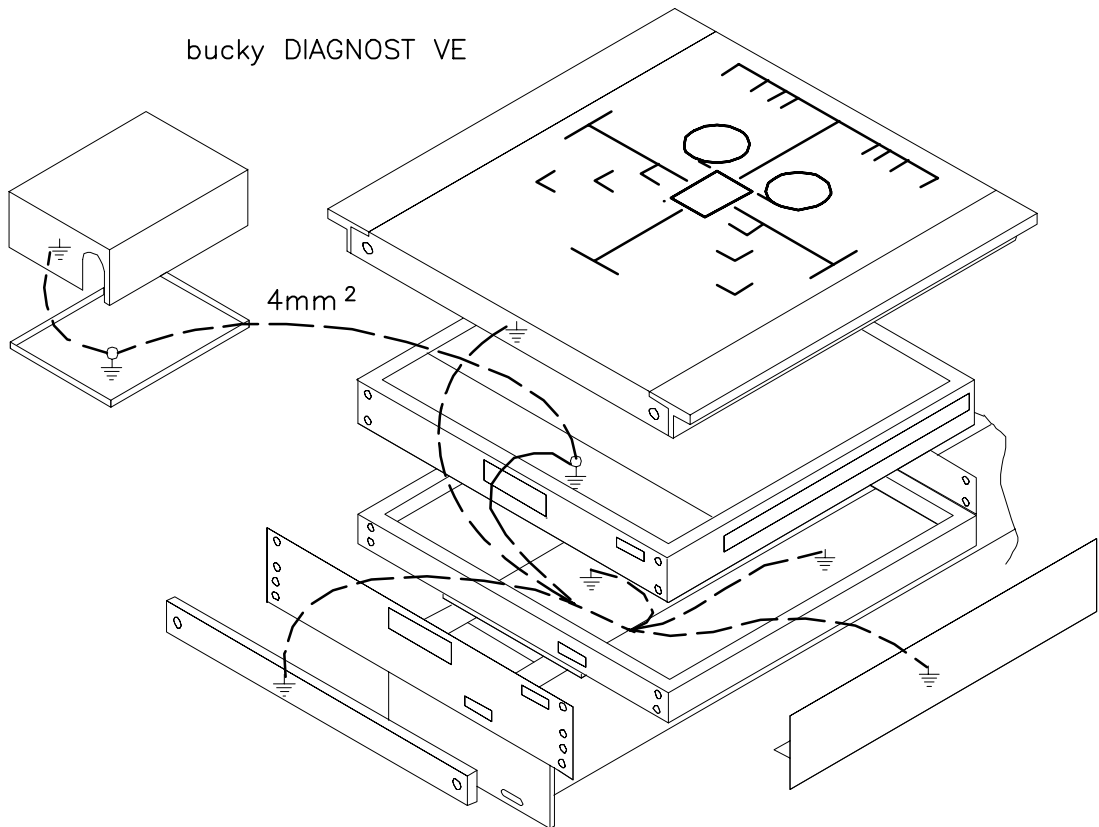
State of delivery



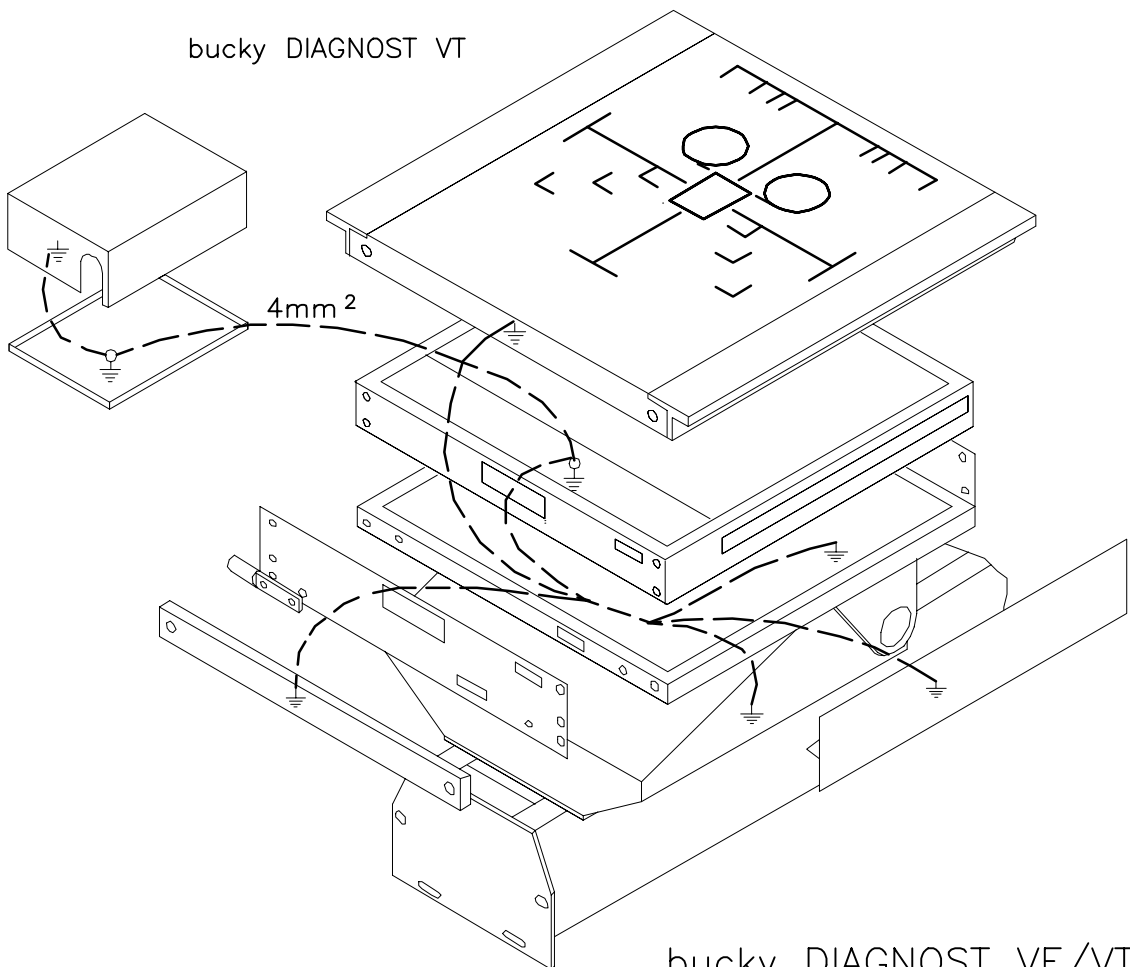
A4 00-05-22 Ost.
00721z71

bucky DIAGNOST VE/VT
Connection diagram

bucky DIAGNOST VE

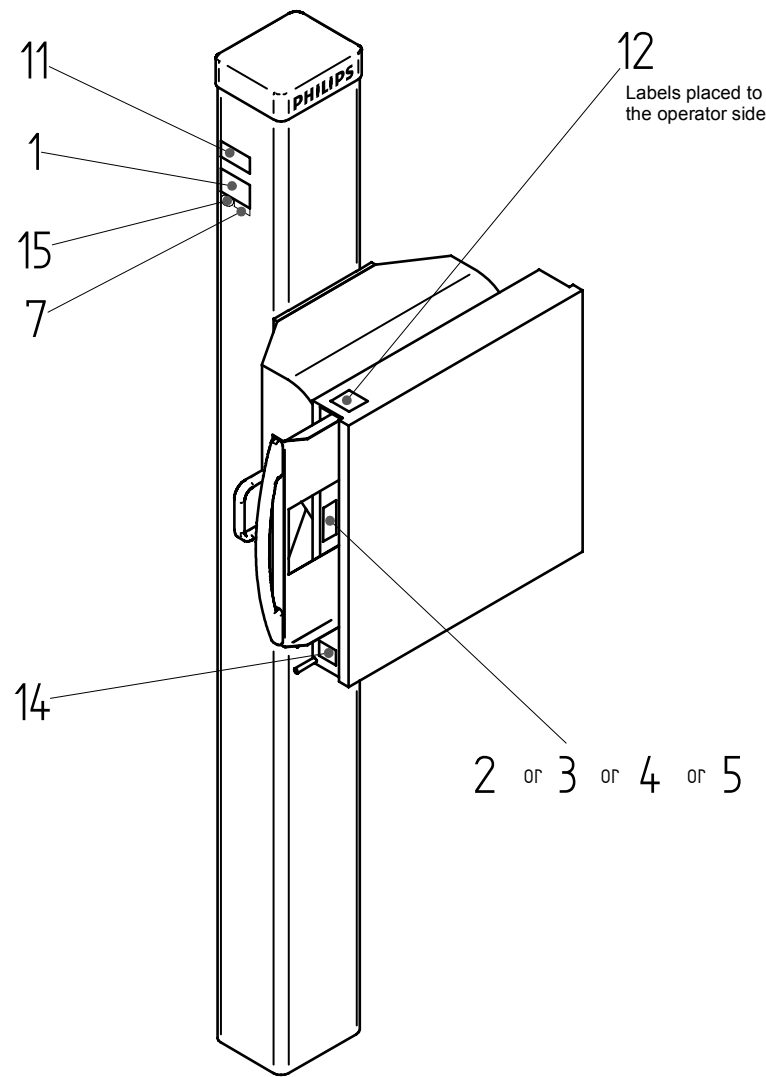


bucky DIAGNOST VT



bucky DIAGNOST VE/VT
Earthing diagram

A4 00-05-22 DP/Ost.
00721z73



1

	PHILIPS	Philips Medical Systems DMC GmbH Röntgenstr. 24 D-22335 Hamburg/Germany
type 9890 010 0651. s/n yy.00.nnn bucky DIAGNOST VE / VT		X-RAY EQUIPMENT WITH RESPECT TO ELECTRICAL FIRE SHOCK AND MECHANICAL HAZARDS ONLY <6418>
 Class I - Type B IEC 60601-1	Associated equipment IEC 60601-2-32:1994	

15

only stuck on China-systems

7

0123

2

	PHILIPS	Philips Medical Systems DMC GmbH Röntgenstr. 24 D-22335 Hamburg/Germany
type 4512 201 0225. s/n yy.00.nnn bucky device right		
	24V --- 350mA	

type 4512 131 1758.
cassette tray right

or

3

	PHILIPS	Philips Medical Systems DMC GmbH Röntgenstr. 24 D-22335 Hamburg/Germany
type 4512 201 0223. s/n yy.00.nnn bucky device sensing right		
	24V --- 350mA	

type 4512 131 1756.
cassette tray sensing right

or

4

	PHILIPS	Philips Medical Systems DMC GmbH Röntgenstr. 24 D-22335 Hamburg/Germany
type 4512 201 0224. s/n yy.00.nnn bucky device sensing left		
	24V --- 350mA	

type 4512 131 1755.
cassette tray sensing left

5

	PHILIPS	Philips Medical Systems DMC GmbH Röntgenstr. 24 D-22335 Hamburg/Germany
type 4512 201 0226. s/n yy.00.nnn bucky device left		
	24V --- 350mA	

type 4512 131 1757.
cassette tray left

11

type 4512 201 0228. s/n bucky DIAGNOST VT	This product complies with the DHHS requirements of 21 CFR Sub-chapter J Manufactured: June 2001		
	-X-RAY EQUIPMENT - WITH RESPECT TO ELECTRICAL FIRE SHOCK AND MECHANICAL HAZARDS ONLY 3887	Made by HANS PAUSCH	

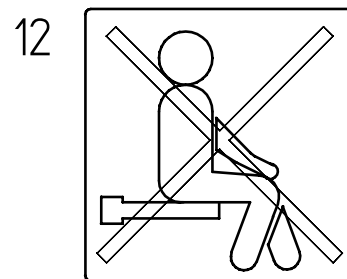
or

type 4512 201 0227.
s/n
bucky DIAGNOST VE

This product complies with the DHHS
requirements of 21 CFR Sub-chapter J
Manufactured: June 2001

-X-RAY EQUIPMENT -
WITH RESPECT TO ELECTRICAL
FIRE SHOCK AND MECHANICAL
HAZARDS ONLY
3887

Made by
HANS PAUSCH



14

X-RAY GRID STREUSTRAHLENRASTER GRILLE ANTIOFFUSANTE			
Lp/cm	<input type="checkbox"/>	K	<input type="checkbox"/>
ratio	<input type="checkbox"/>	B	<input type="checkbox"/>
fo(cm)	<input type="checkbox"/>	Σ	<input type="checkbox"/>

bucky DIAGNOST VE/VT
Labelling

FAULT FINDING TEXT

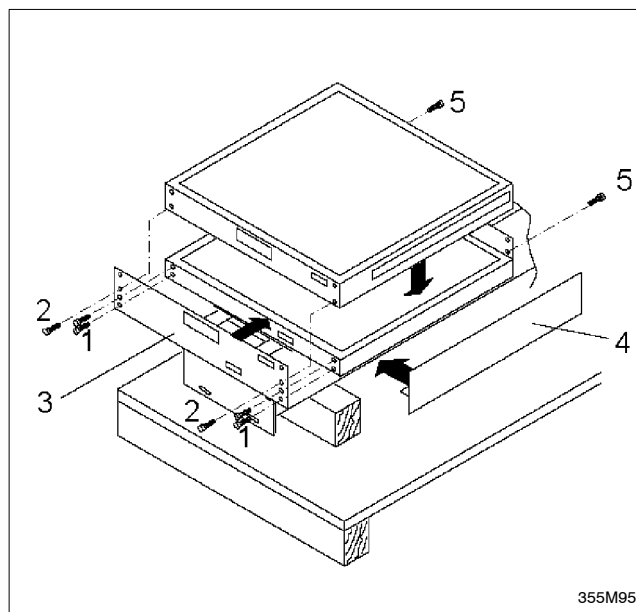
Contents	3-0.1
1. Installation of the economy bucky unit	3-1
1.1. Version VE	3-1
1.2. Version VT	3-2
2. Installation of the automatic cassette loader bucky unit	3-3
2.1. Version VE	3-3
2.2. Version VT	3-4
3. Reconstruction of handles version VE	3-6
4. Reconstruction of handles version VT	3-7
5. Installation of the spacer version VE	3-8
6. Change from Left Hand Version to Right Hand Version	3-9

1. Installation of the economy bucky unit

1.1. Version VE

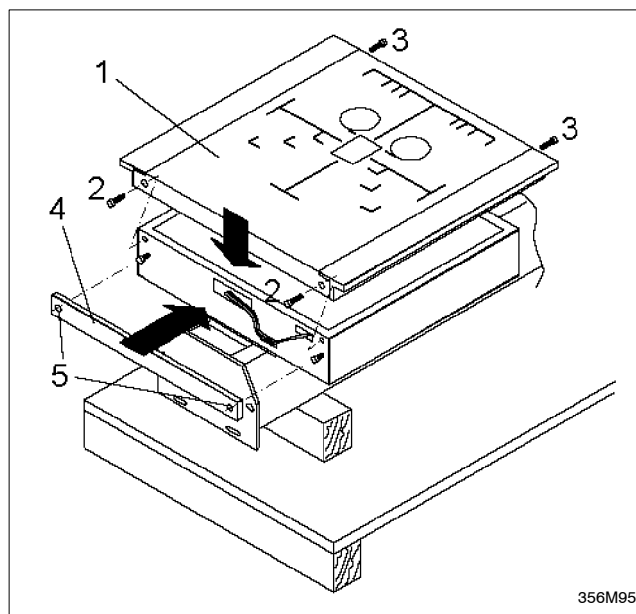
The following steps have to be carried out at the column in the horizontal position.

- Install the side cover (4) and fix it with the shackle.
- Place the bucky unit between the covers.
- Install the cover (3) with 4 sockethead cap screws (1) and washers on the carrier or spacer (use the installed bolts).
- Fix the bucky unit with 2 sockethead cap screws (2) M5x16 and washers and 2 sockethead cap screws (5) M5x12 and washers (accessories: bag 1).
- Pull the connection cables for the bucky unit, the earthing cables and the cable for the Amplimat measurement chamber through the appropriate openings.
- Connect the bucky cables, the earthing cables and the cable for the Amplimat measurement chamber as shown in the connection diagram Z-5.



- Connect the earthing cables to the covers.
- Install the front panel (1) with 2 screws (2) M5x10 and washers and 2 sockethead cap screws (3) (accessories: bag 1)
- Insert the cable cover (4) and fix the screws M5x16 through the holes (5).
- Place two blocks of wood or similar under the column and remove the transport safety fixing bars from above and below both sides of the pallet.

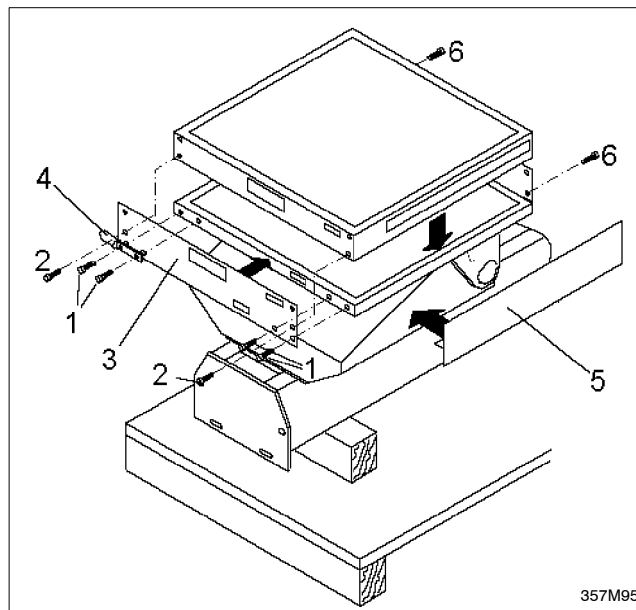
Install the column as described in section 2 of this manual.



1.2. Version VT

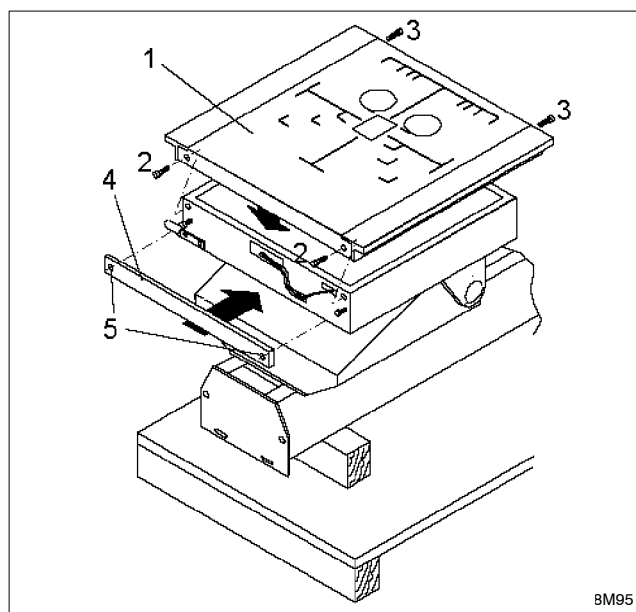
The following steps have to be carried out at the column in the horizontal position.

- Install the side cover (5).
- Place the bucky unit between the covers.
- Install the cover (3) and the fixed part of the tilting handle (4) with 4 sockethead cap screws (1) and washers on the carrier (use the installed screws).
- Fix the bucky unit with 2 sockethead cap screws M5x16 (2) and washers and 2 sockethead cap screws M5x12 (6) and washers (accessories: bag 1).
- Pull the connection cables for the bucky unit, the earthing cables and the cable for the Amplimat measurement chamber through the appropriate openings.
- Connect the bucky cables, the earthing cables and the cable for the Amplimat measurement chamber as shown in the connection diagram Z-5.
-



- Connect the earthing cables to the covers.
- Install the front panel (1) with 2 screws (2) M5x10 and washers and 2 sockethead cap screws (3) (accessories: bag 1)
- Insert the cable cover (4) and fasten the screws M5x16 through the holes (5).
- Place two blocks of wood or similar under the column and remove the transport safety fixing bars from above and below both sides of the pallet.

Install the column as described in section 2 of this manual.

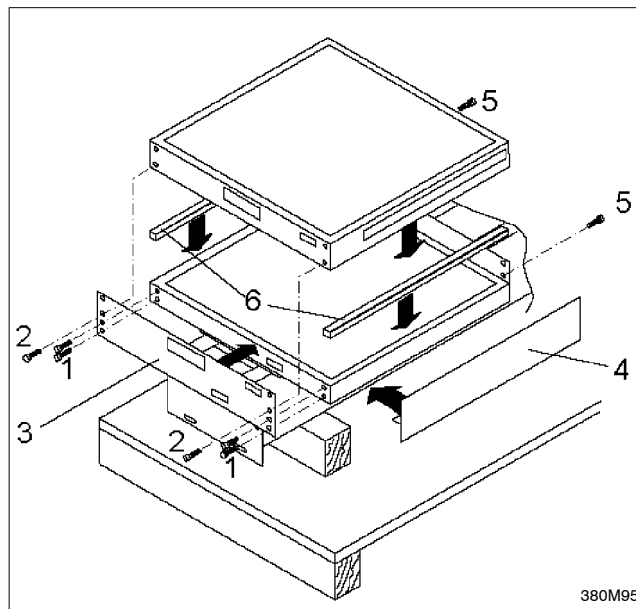


2. Installation of the automatic cassette loader bucky unit

2.1. Version VE

The following steps have to be carried out at the column in the horizontal position.

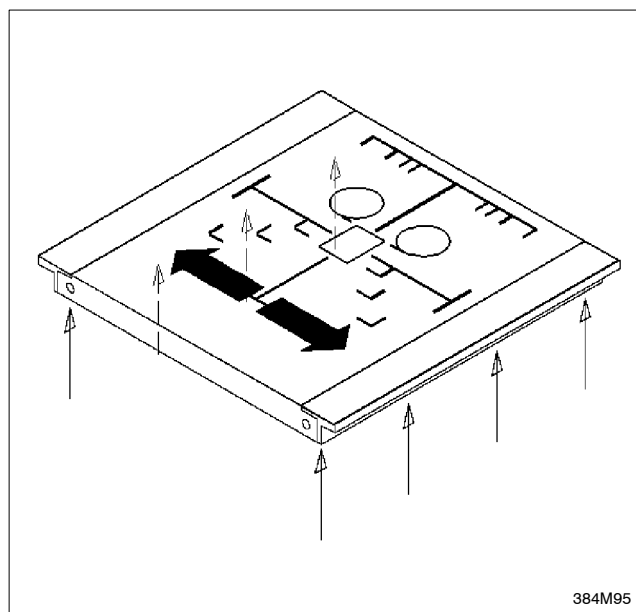
- Install the side cover (4) and fix it with the shackle.
- Insert the ledges (6).
- Place the bucky unit between the covers.
- Install the cover (3) with 4 sockethead cap screws (1) and washers on the carrier or spacer (use the installed bolts).
- Fix the bucky unit with 2 sockethead cap screws (2) M5x16 and washers and 2 sockethead cap screws (5) M5x12 and washers (accessories: bag 1).
- Pull the connection cables for the bucky unit, the earthing cables and the cable for the Amplimat measurement chamber through the appropriate openings.
- Connect the bucky cables, the earthing cables and the cable for the Amplimat measurement chamber as shown in the connection diagram Z-5.



Depending on the installation side of the bucky tray (left or right hand side) the front panel has to be shifted to the opposite side.

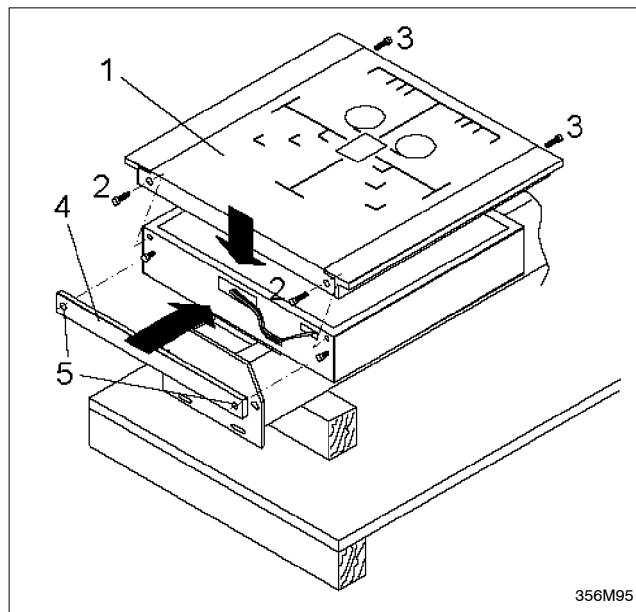
The front panel has to be modified.

- Loosen the 8 screws from the rear side of the front panel.
- Shift the front panel.
- Fasten the 8 screws at the rear side.



- Connect the earthing cables to the covers.
- Install the front panel (1) with 2 screws (2) M5x10 and washers and 2 sockethead cap screws (3) (accessories: bag 1)
- Insert the cable cover (4) and fasten the screws M5x16 through the holes (5).
- Place two blocks of wood or similar under the column and remove the transport safety fixing bars from above and below both sides of the pallet.

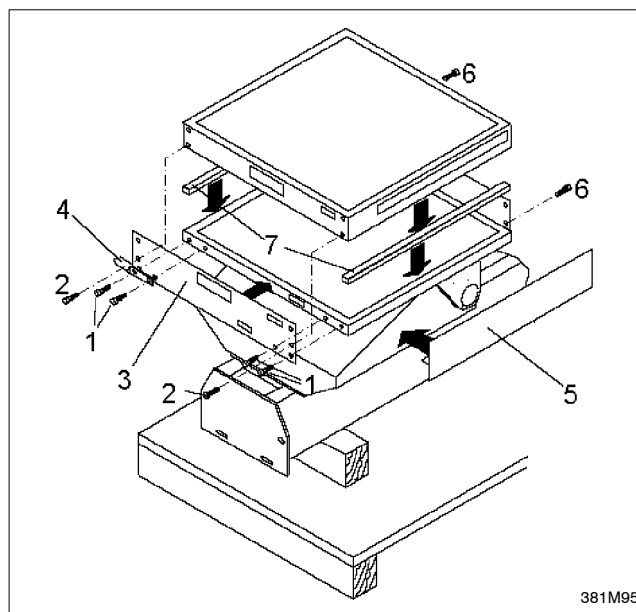
Install the column as described in section 2 of this manual.



2.2. Version VT

The following steps have to be carried out at the column in the horizontal position.

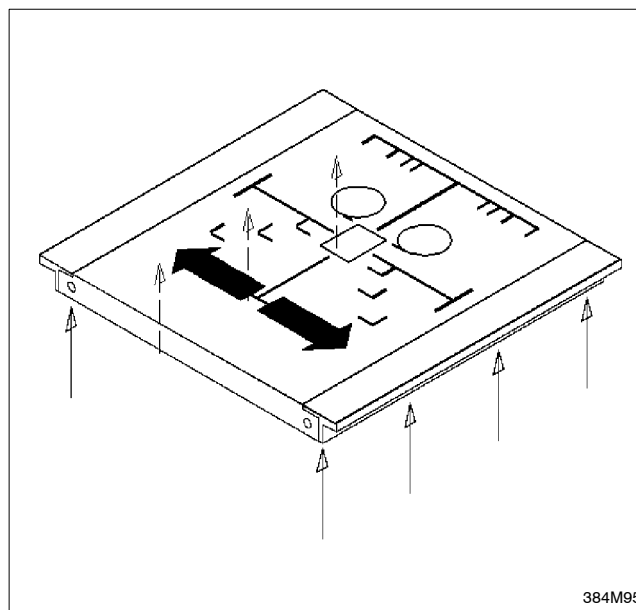
- Install the side cover (5).
- Insert the ledges (7).
- Place the bucky unit between the covers.
- Install the cover (3) and the fixed part of the tilting handle (4) with 4 sockethead cap screws (1) and washers on the carrier (use the installed screws).
- Fix the bucky unit with 2 sockethead cap screws M5x16 (2) and washers and 2 sockethead cap screws M5x12 (6) and washers (accessories: bag 1).
- Pull the connection cables for the bucky unit, the earthing cables and the cable for the Amplimat measurement chamber through the appropriate openings.
- Connect the bucky cables, the earthing cables and the cable for the Amplimat measurement chamber as shown in the connection diagram Z-5.



Depending on the installation side of the bucky tray (left or right hand side) the front panel has to be shifted to the opposite side.

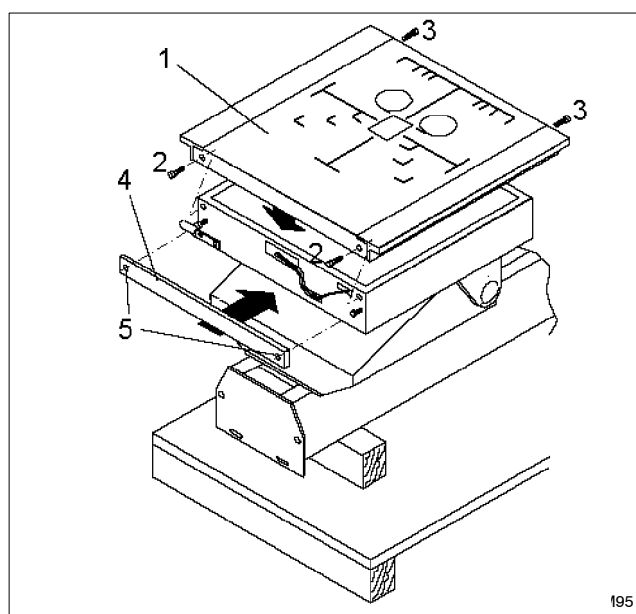
The front panel has to be modified.

- Loosen the 8 screws from the rear side of the front panel.
- Shift the front panel.
- Fasten the 8 screws at the rear side.



- Connect the earthing cables to the covers.
- Install the front panel (1) with 2 screws (2) M5x10 and washers and 2 sockethead cap screws (3) (accessories: bag 1)
- Insert the cable cover (4) and fasten the screws M5x16 through the holes (5).
- Place two blocks of wood or similar under the column and remove the transport safety fixing bars from above and below both sides of the pallet.

Install the column as described in section 2 of this manual.

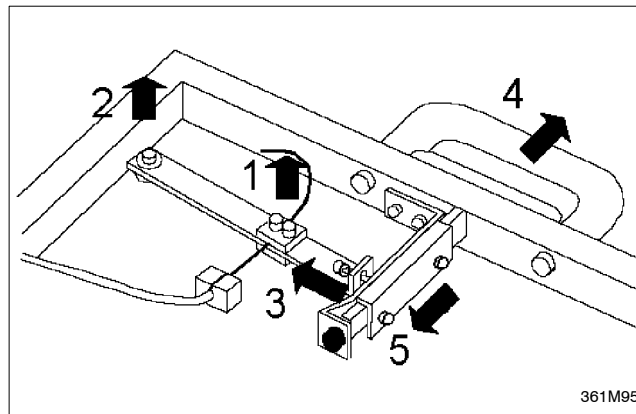


3. Reconstruction of handles version VE

The column will be supplied with installed brake handle at the left-hand side of the column. If the application requires the handling from right-hand side the brake handle has to be changed.

In case of later reconstruction the bucky unit has to be remounted first. The remounting should be done in opposite sequence as the installation and is described at section F-1.

- Mark the position of the rope and loosen the rope.
- Remount all parts in mentioned sequence.
- Install the brake handle in the opposite position on the right-hand side.
- Position the rounded edge correct.
- Fix the rope at the marked position.
- Check the easy movement of the brake function.



Note

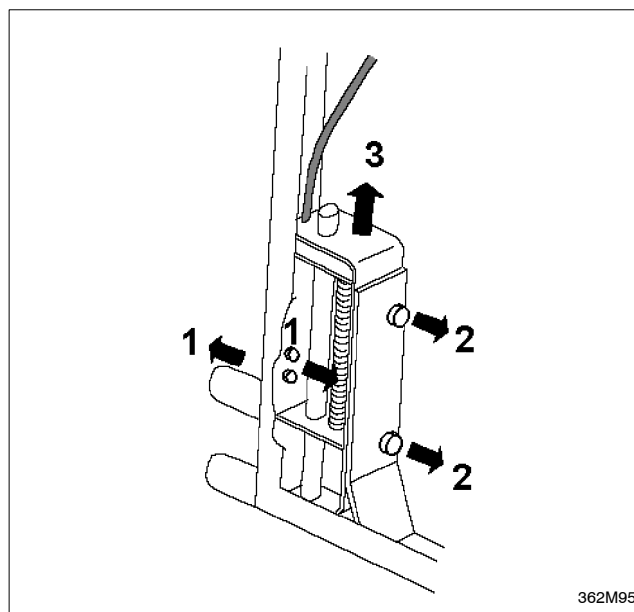
Depending on the installed bucky unit the grid movement inside the bucky unit has to be changed too. The appropriate informations should be withdrawn from the technical documentation of the bucky unit.

4. Reconstruction of handles version VT

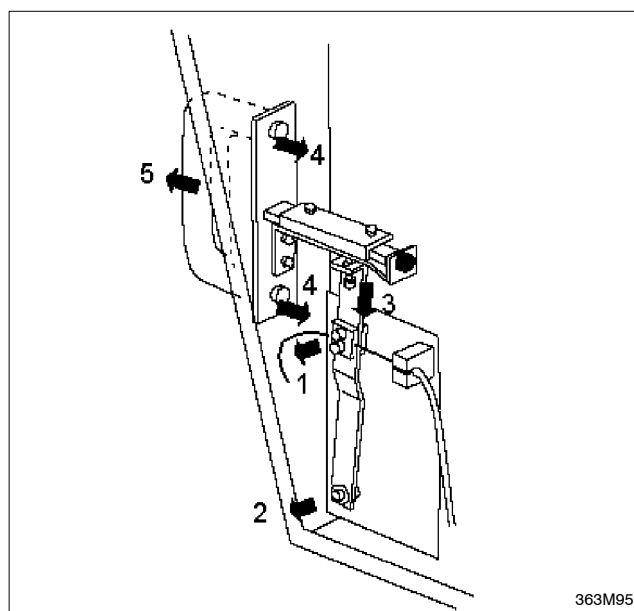
The column will be supplied with installed brake handle and the tilting handle at the left-hand side of the column. If the application requires the handling from right-hand side the handles have to be changed.

In case of later reconstruction the bucky unit has to be remounted to exchange the tilting handle. The remounting should be done in opposite sequence as the installation and is described at section F-1.

- Mark the position of the rope and loosen the rope.
- Open all parts in mentioned sequence and remove them.
- Install the tilting handle in the opposite position on the right-hand side.
- Change the fixed part of the handle to the reflection position.
- Check the easy movement of the tilting function.



- Tilt the bucky unit to the horizontal position.
- Remove the cover from the bucky carrier.
- Mark the position of the brake rope and loosen the rope.
- Open all parts in mentioned sequence and remove them.
- Install the brake handle in the reflection position on the right-hand side.
- Position the rounded edge correct.
- Fix the rope at the marked position.
- Check the easy movement of the brake function.



Note

Depending on the installed bucky unit the grid movement inside the bucky unit has to be changed too. The appropriate informations should be withdrawn from the technical documentation of the bucky unit.

5. Installation of the spacer version VE

If the optional spacer has to be installed later the bucky unit has to be remounted before the spacer may be installed. The remounting should be done in opposite sequence as the installation and is described at this section.

- Remount all covers.
- Loosen all cable connections.
- Remove the baseplate from carrier.
- Mark the position of the brake wire rope at the fixing point and remove the wire rope.
- Install the spacer and fix it with 4 bolts.
- Install the baseplate on top of the spacer.
- Fix the rope at the marked position.
- Install the bucky unit and connect all cables and earthing cables again.

To add the additional counterweight the column must not be re-installed.

- Re-install the column covers.
- Move the bucky unit until the tapping hole in the counterweight and the hole in the column are congruent.
- Fix the counterbalance by a M12 bolt and washer.

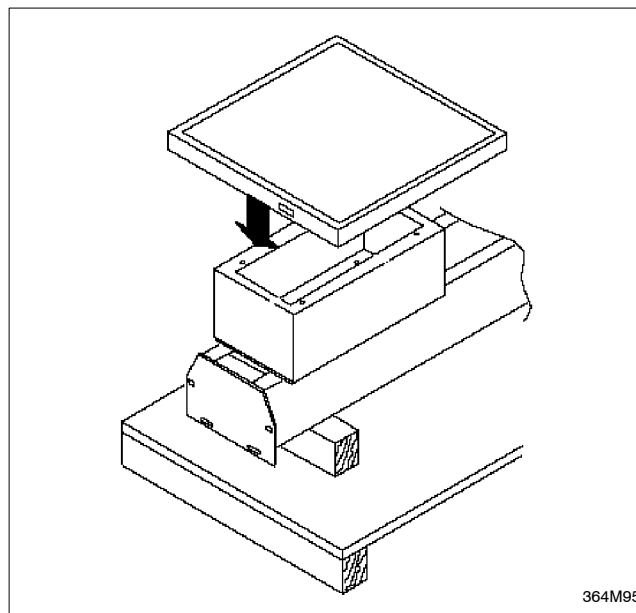
- Lift the bucky unit until the rope relieves.
- Fix the bucky unit in this position by a wooden block.
- Loosen all parts in mentioned sequence and remove the rope-roller.

The fixing bolt of the rope at the counterbalance side will be accessible now.

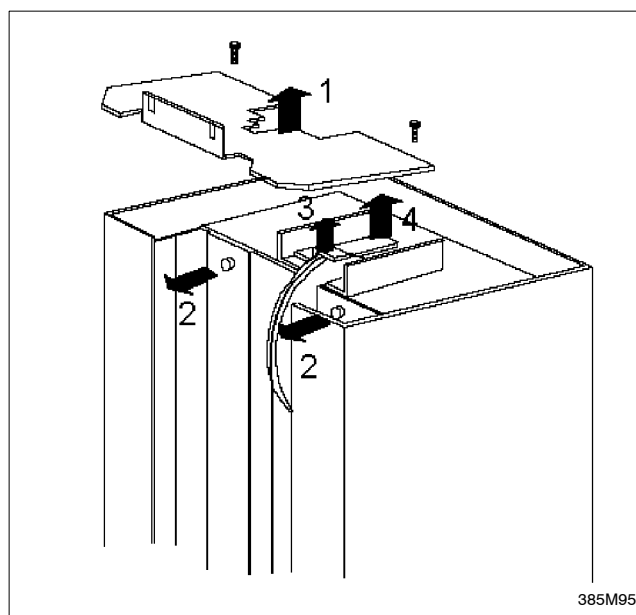
- Loosen the rope at the counterbalance.
- Remove the rope holder at the counterbalance.
- Install the supplied counterweight plates.
- Install the rope holder.
- Fix the rope again.
- Install all parts in the opposite sequence.

Pay attention to washers and parts at both fixing points and check that the rope safety part is installed correctly.

- Remove the wooden block.
- Remove the bolt at the counterbalance.
- Check that the function is smooth.
- Install the covers.

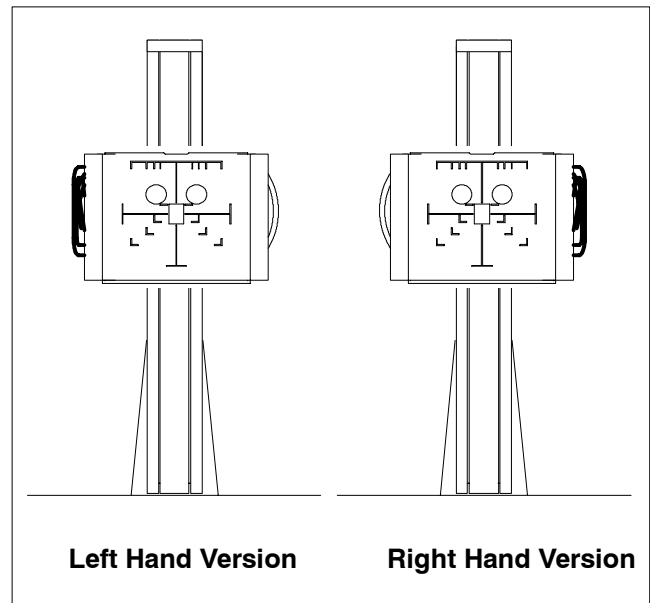


364M95



385M95

6. Change from Left Hand Version to Right Hand Version



Note:

Modification is not possible. The order must be placed, see questionnaire.



Replacement TEXT

	Contents	4-0.1
1.	Exchange of wire ropes	4-1
2.	Replacement of the vertical brake rope	4-2

1. Exchange of wire ropes

At both versions the column must not be re-installed completely to exchange the rope.

At the version VE the bucky unit and the baseplate must be re-installed to exchange the rope.

At the version VT the fixing point for the rope will be accessible if the bucky unit will be tilt to the horizontal position and the cover has been re-installed.

- Re-install the cover.
- Move the bucky unit until the tapping hole in the counterweight and the hole in the column are congruent.
- Fix the counterbalance by a M12 bolt and washer.

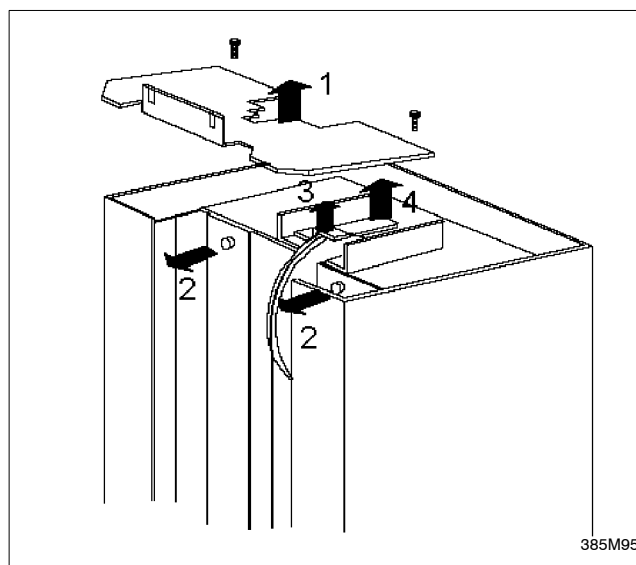
- Lift the bucky unit until the rope relieves and fix the bucky unit in this position by a wooden block.
- Loosen the wire rope at the bucky carrier side.
- Loosen all parts in mentioned sequence and remove the rope-roller.

The fixing bolt of the rope at the counterbalance side will be accessible now.


- Loosen the rope at the counterbalance and exchange the rope.
- Install the rope-roller again.
- Install the rope at the carrier.

Pay attention to washers and parts at both fixing points and check that the rope safety part is installed correctly.

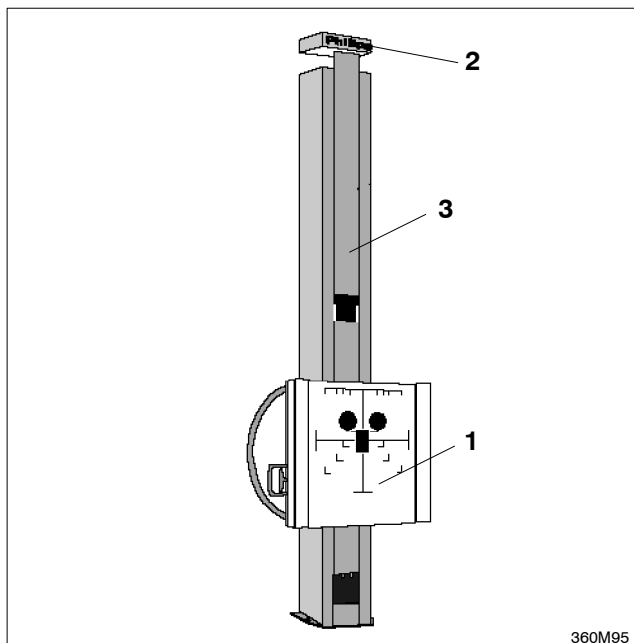
- Remove the wooden block.
- Remove the bolt at the counterbalance.
- Check that the function is smooth.
- Install the covers.



2. Replacement of the vertical brake rope

 1 h	Replacement of the vertical brake rope	
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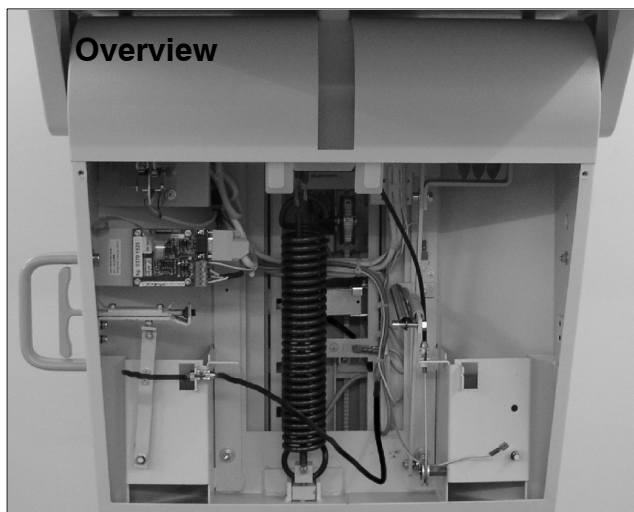
- Switch the system off and drive the vertical carriage to its lowest position **(1)**.
- Remove the top **(2)** and the upper front cover **(3)**.



- Drive the vertical carriage to its highest position.
- Tilt the bucky carriage.
- Loosen the caps and screws **(1)** and remove the covers of the vertical bucky carriage .



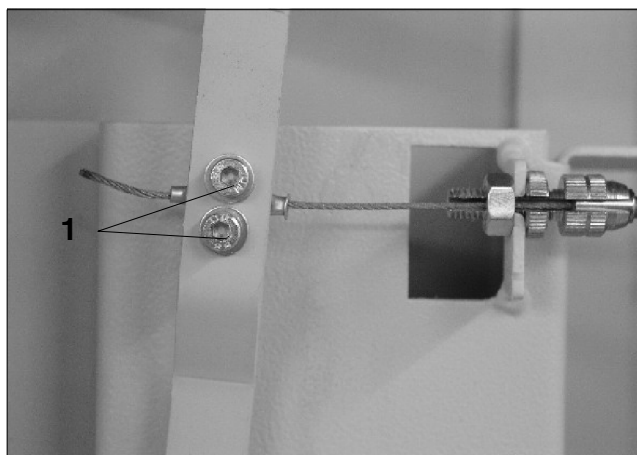
The figure gives an overview over the run of the vertical brake rope.



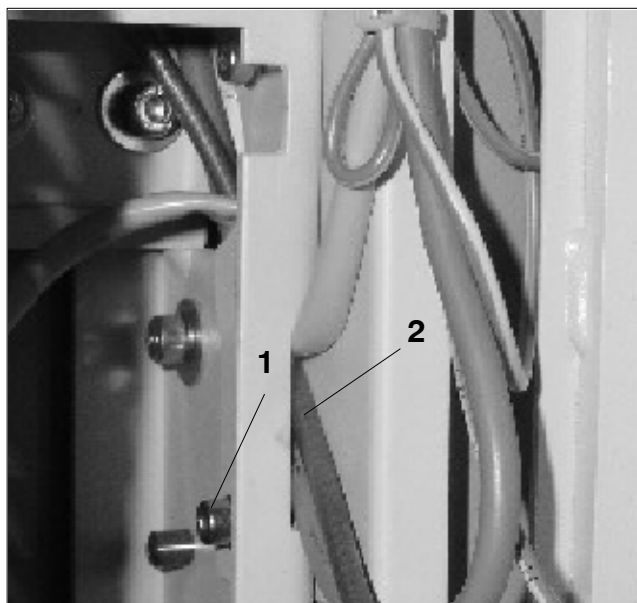
Note

Keep in mind the run of the old vertical brake rope.

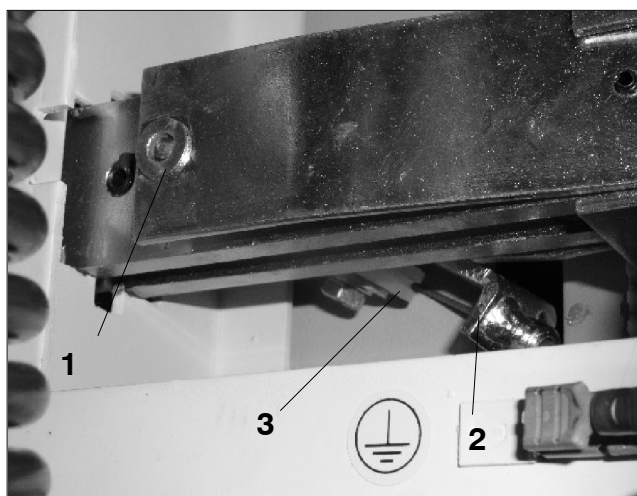
- Loosen the two screws **(1)** with an Allen key.



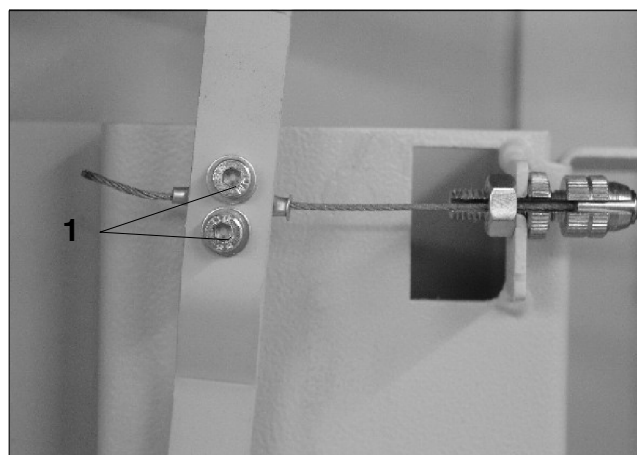
- Loosen the screw **(1)** to get access to the sheath **(2)**.



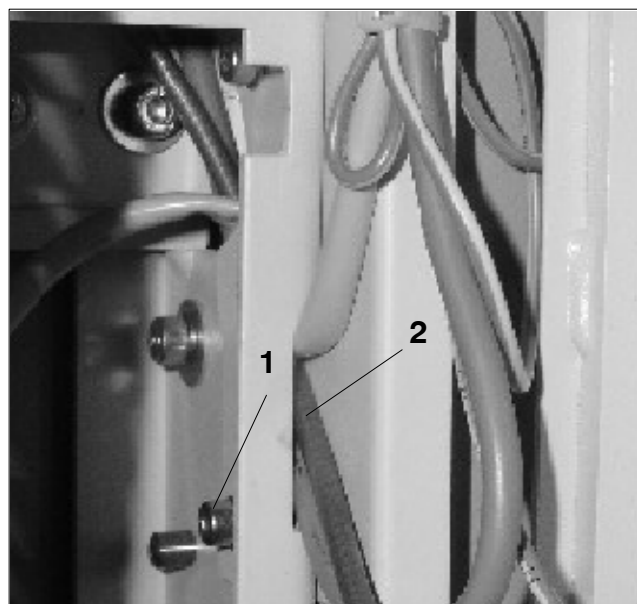
- Pull out the old vertical brake rope from the upper side **(1)**.
- Insert the new vertical brake rope into the sheath **(2)** from the upper side.
 - Ensure that the vertical brake rope rests on the castor **(3)** behind the brake shoes.



- Fasten the vertical brake rope with the two screws **(1)** at the brake lever.



- Fix the screw **(1)**.

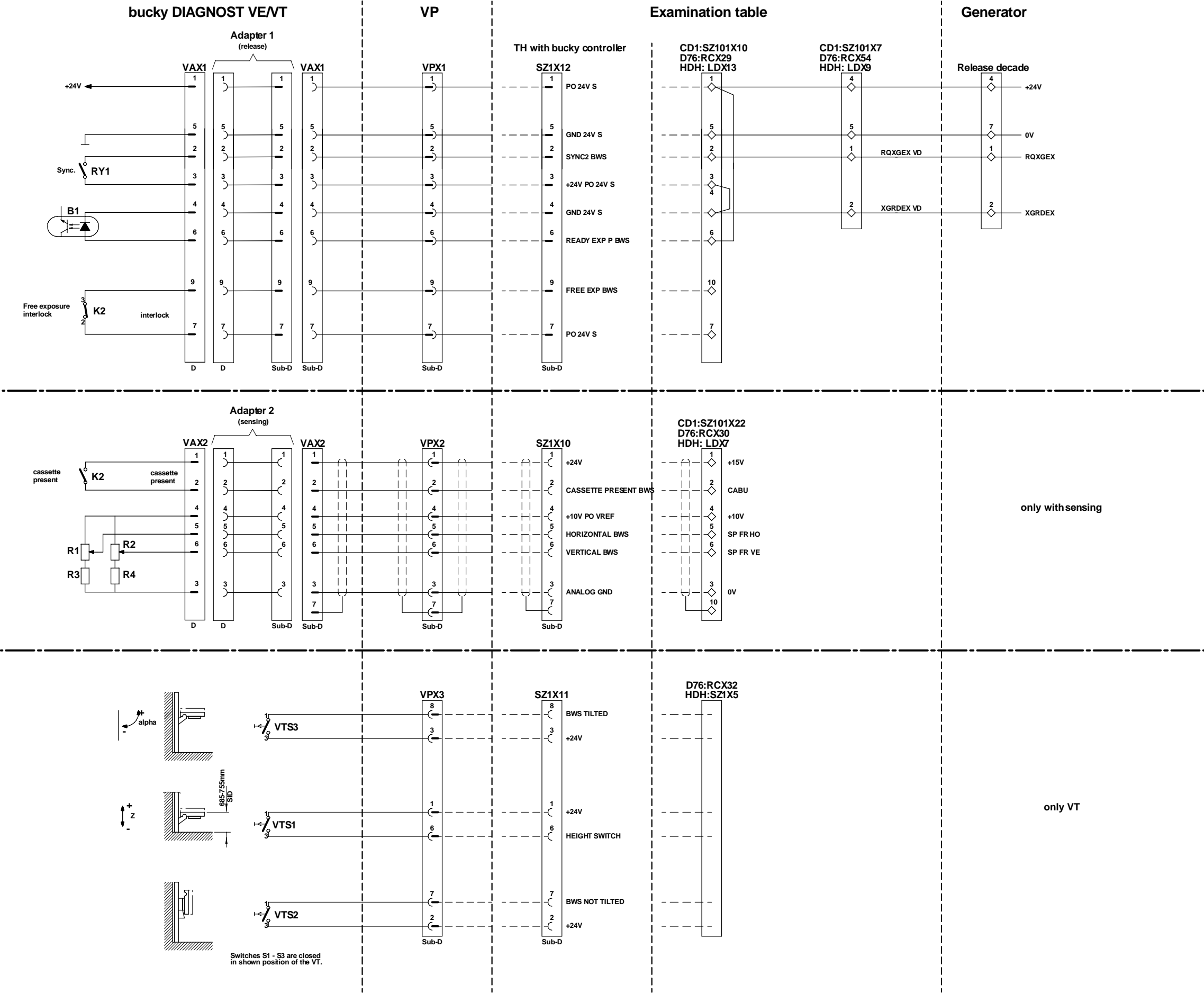


- Check that the vertical brake works.
- Re-fit all covers.



SERVICE MANUAL - UNIT**Drawings**

Schematic diagram bucky DIAGNOST VE / VT with bucky frame 9804 609 51102	Z1-1
Schematic diagram bucky DIAGNOST VE / VT automatic cassette loader ACL	Z1-2
Schematic diagram bucky DIAGNOST VE with bucky unit non sensing	Z1-5
Schematic diagram bucky DIAGNOST VE / VT with bucky unit sensing	Z1-6
Wiring diagram	Z2-1
Wiring diagram with automatic cassette loader ACL	Z2-2
LVLE Power supply	Z3-1



Mnemonics:
BU bucky
CA cassette
EX exposure
FR format
HO horizontal
RD ready
RQ request
SP set point
VD vertical Diagnost
VE vertical
XG X-generator

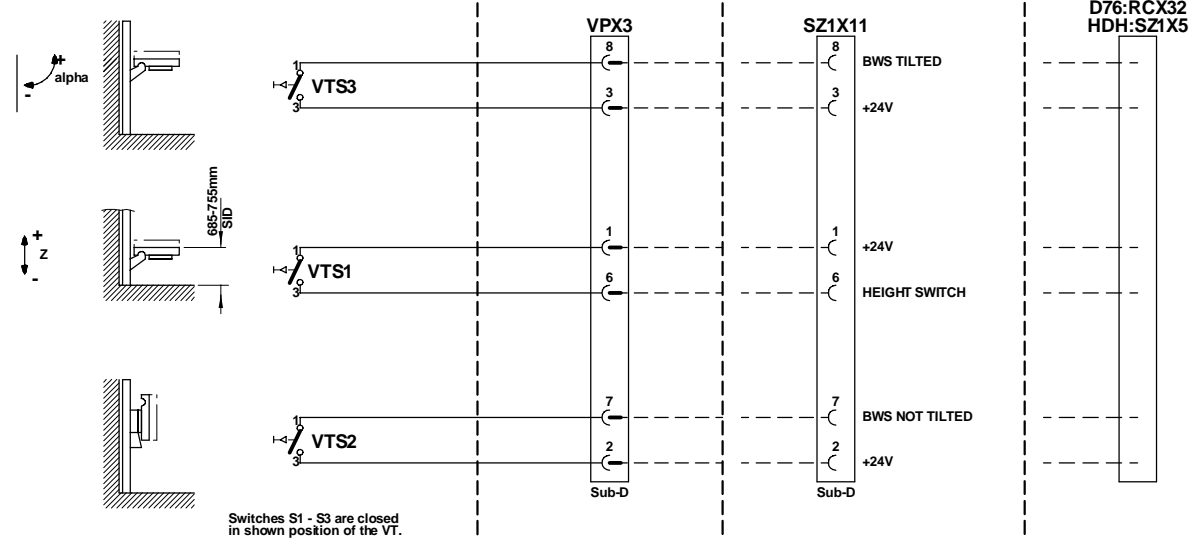
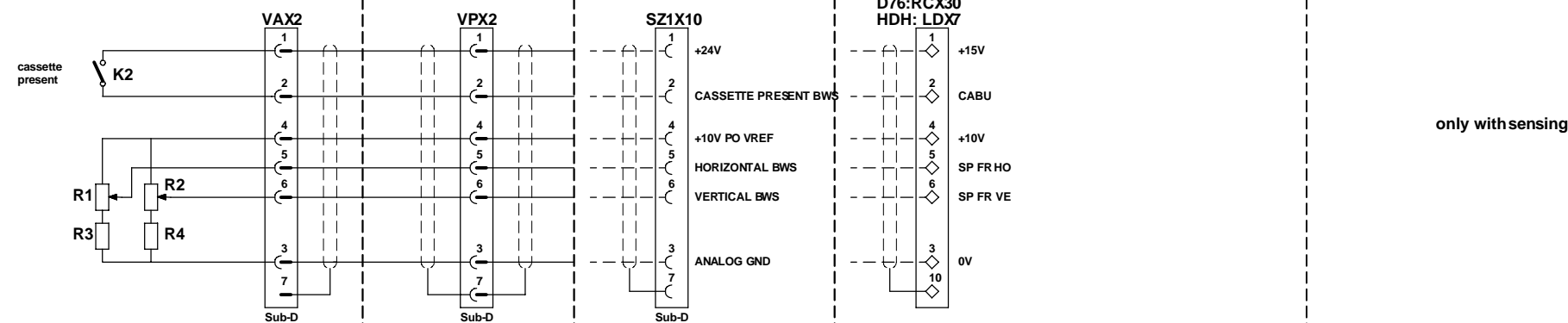
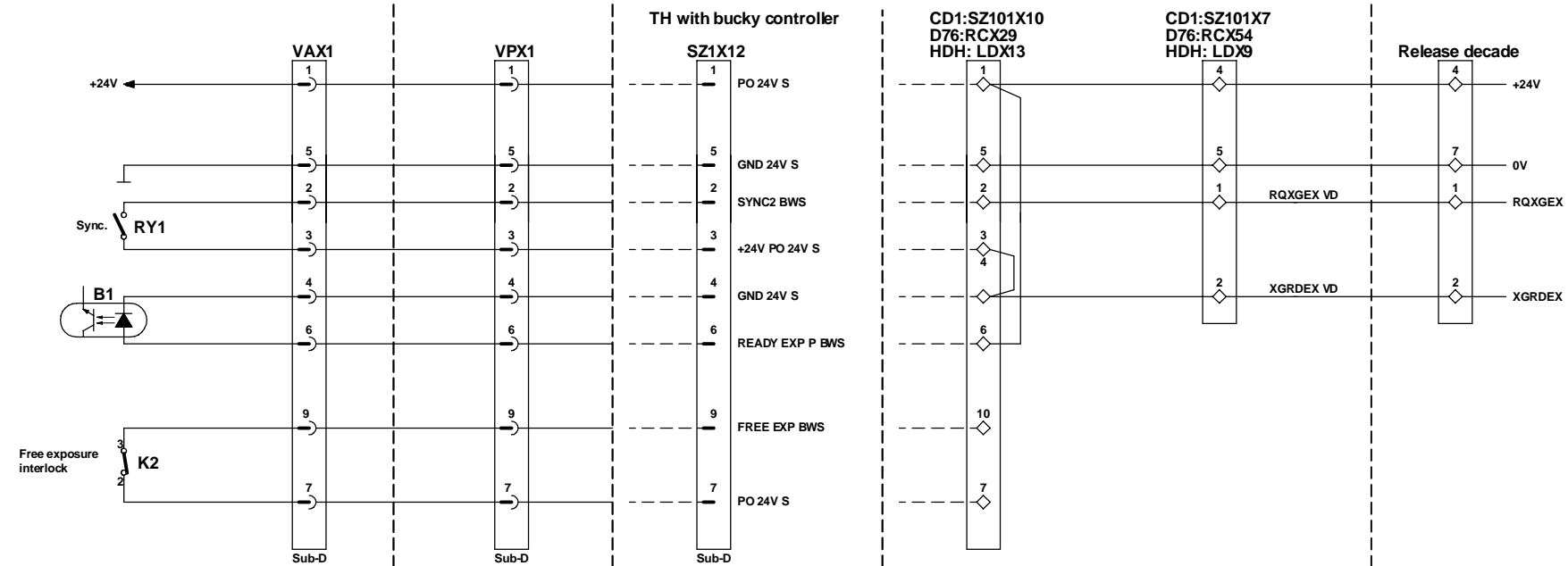
bucky DIAGNOST VE/VT
with bucky frame 9804 609 5..02

ucky DIAGNOST VE/VT

VP

Examination table

Generator



Mnemonics:
 BU bucky
 CA cassette
 EX exposure
 FR format
 HO horizontal
 RD ready
 RQ request
 SP set point
 VD vertical Diagnost
 VE vertical
 XG X-generator

only with sensing

only VT

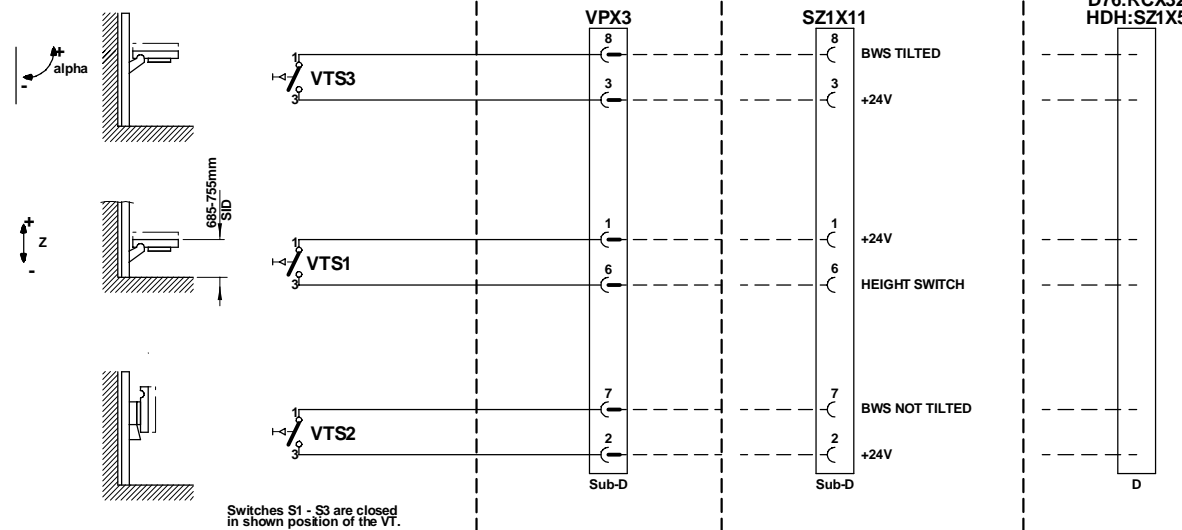
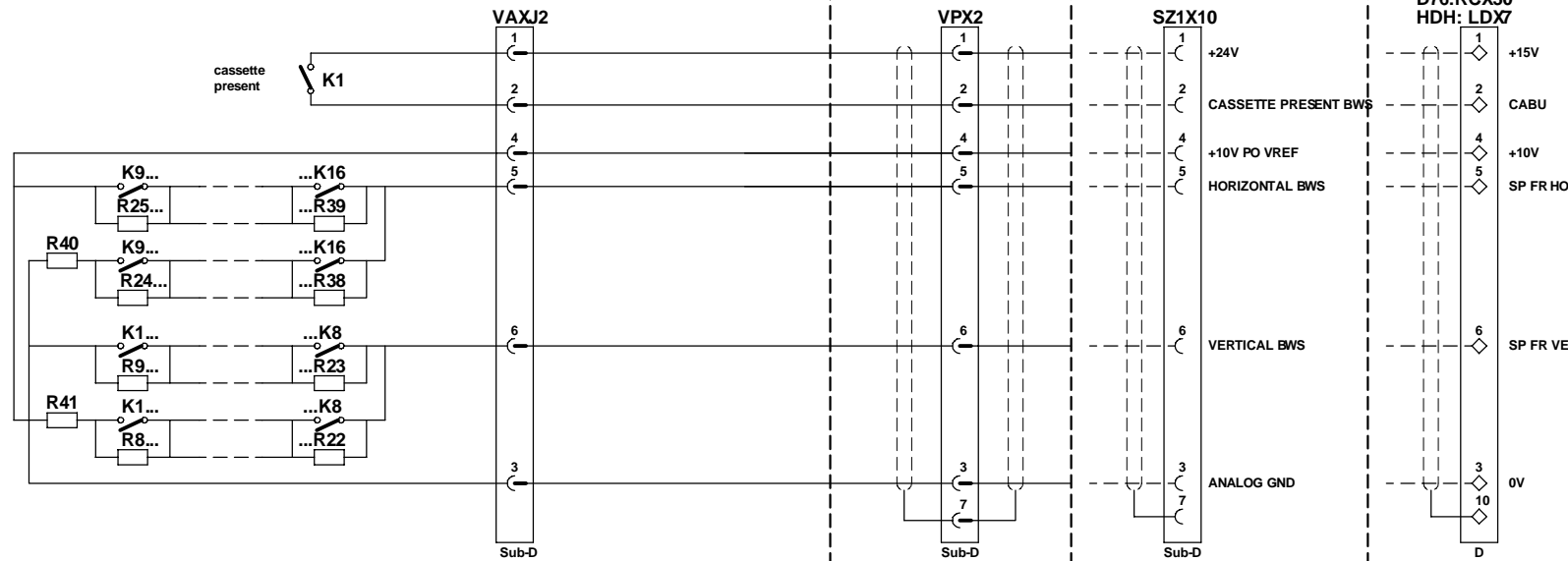
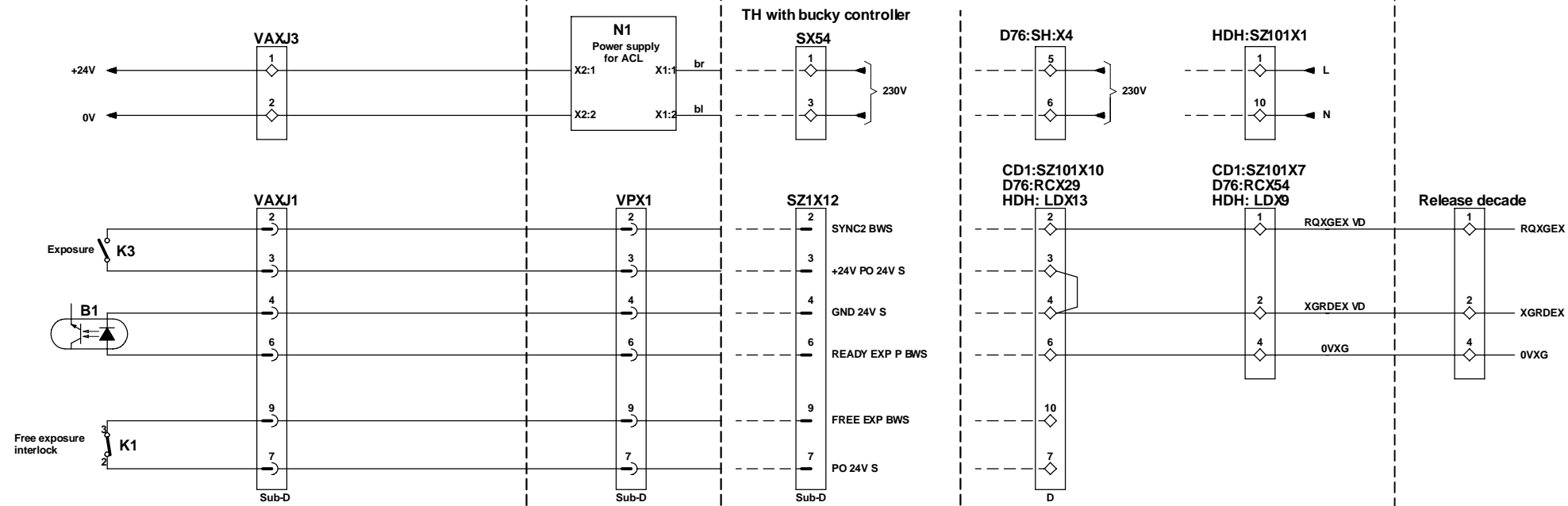
bucky DIAGNOST VE/VT
 with bucky frame 9804 609 5..02

ucky DIAGNOST VENT

VP

Examination table

Generator

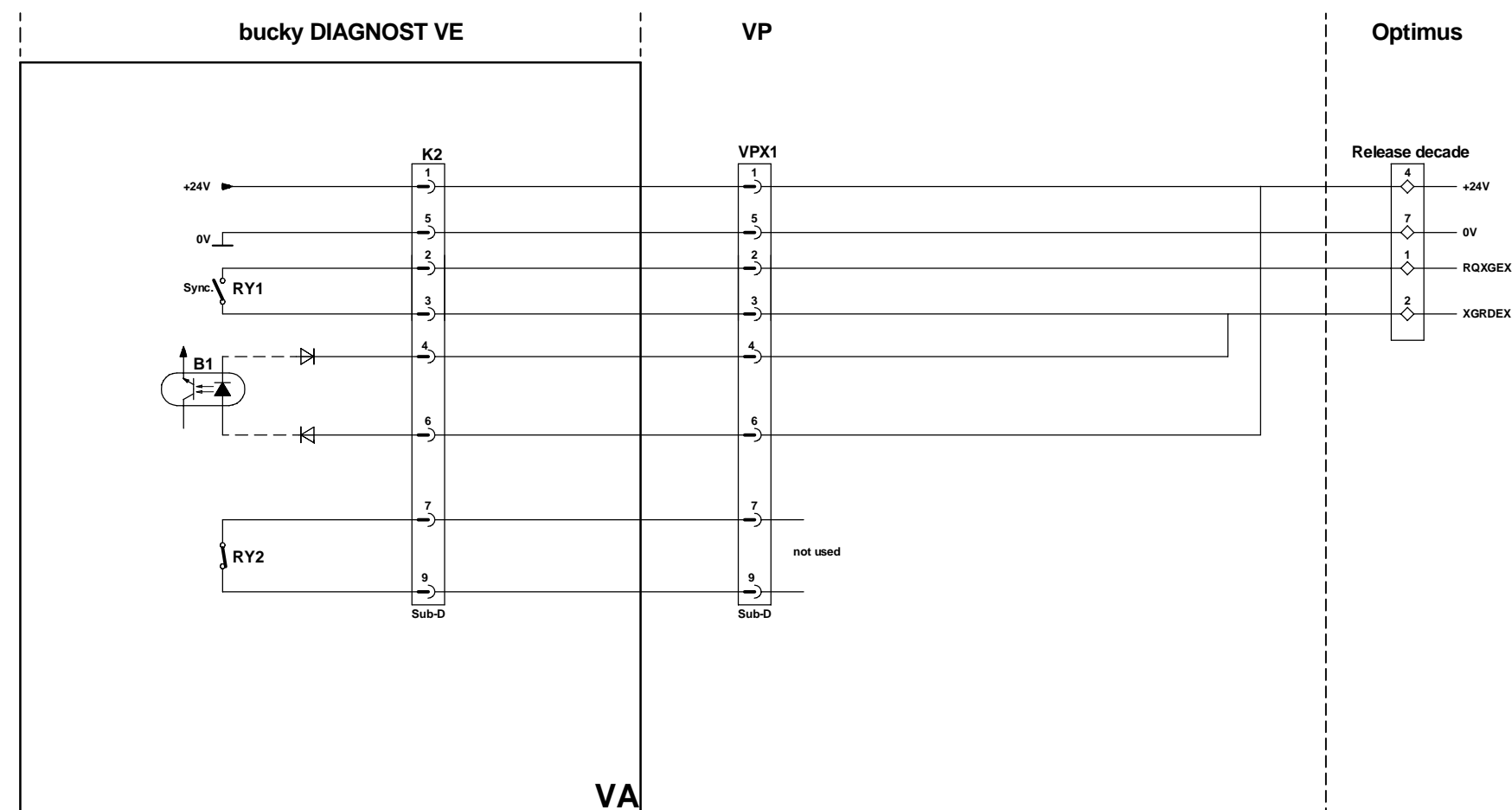


Mnemonics:
BU bucky
CA cassette
EX exposure
FR format
HO horizontal
RD ready
RQ request
SP set point
VD vertical Diagnost
VE vertical
XG X-generator

only with sensing

only VT

bucky DIAGNOST VE/VT
with automatic cassette loader ACL



Mnemonics:
EX exposure
RD ready
RQ request
XG X-generator

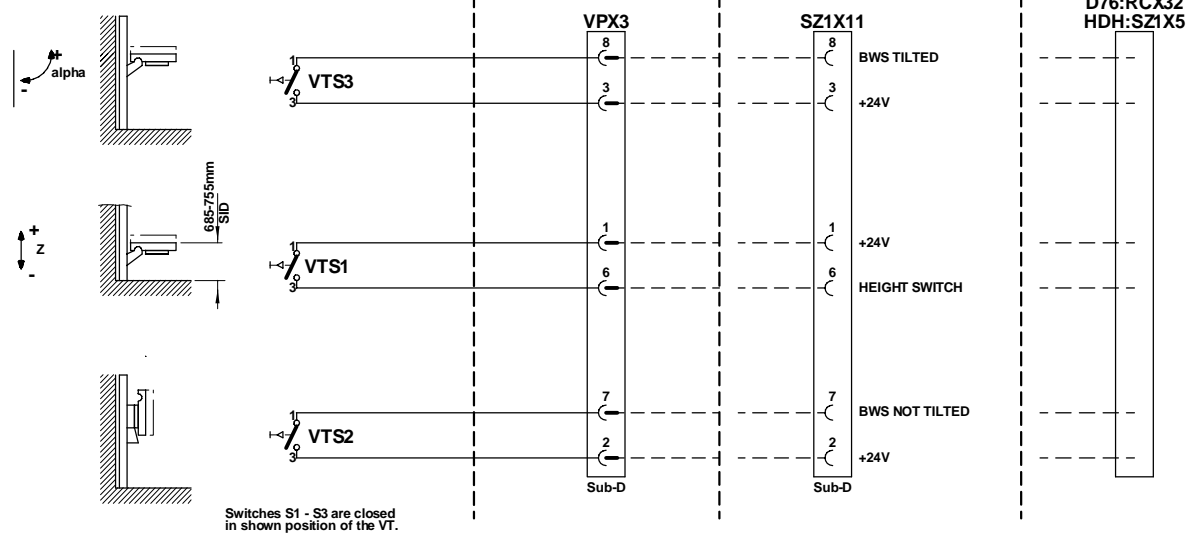
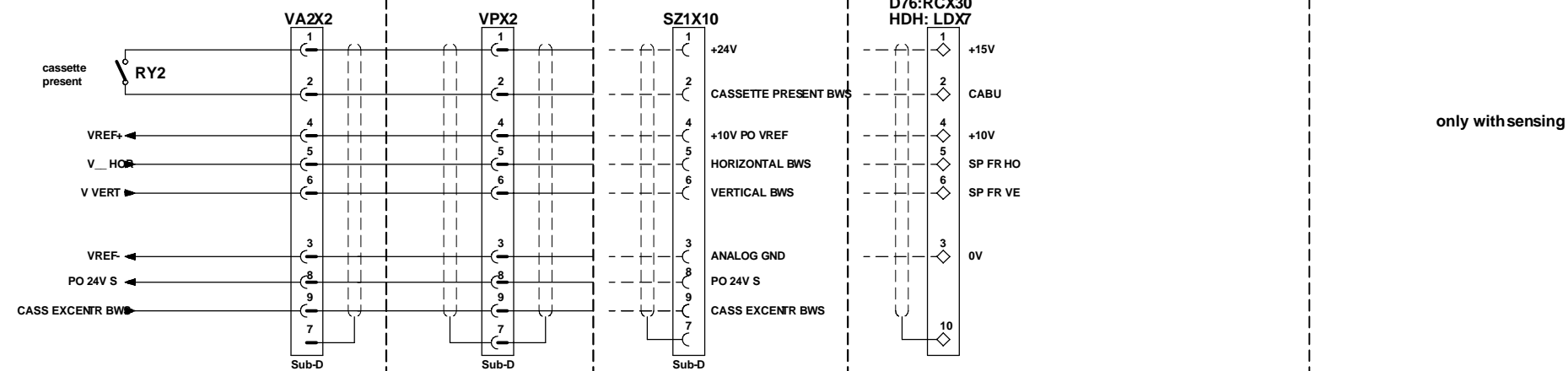
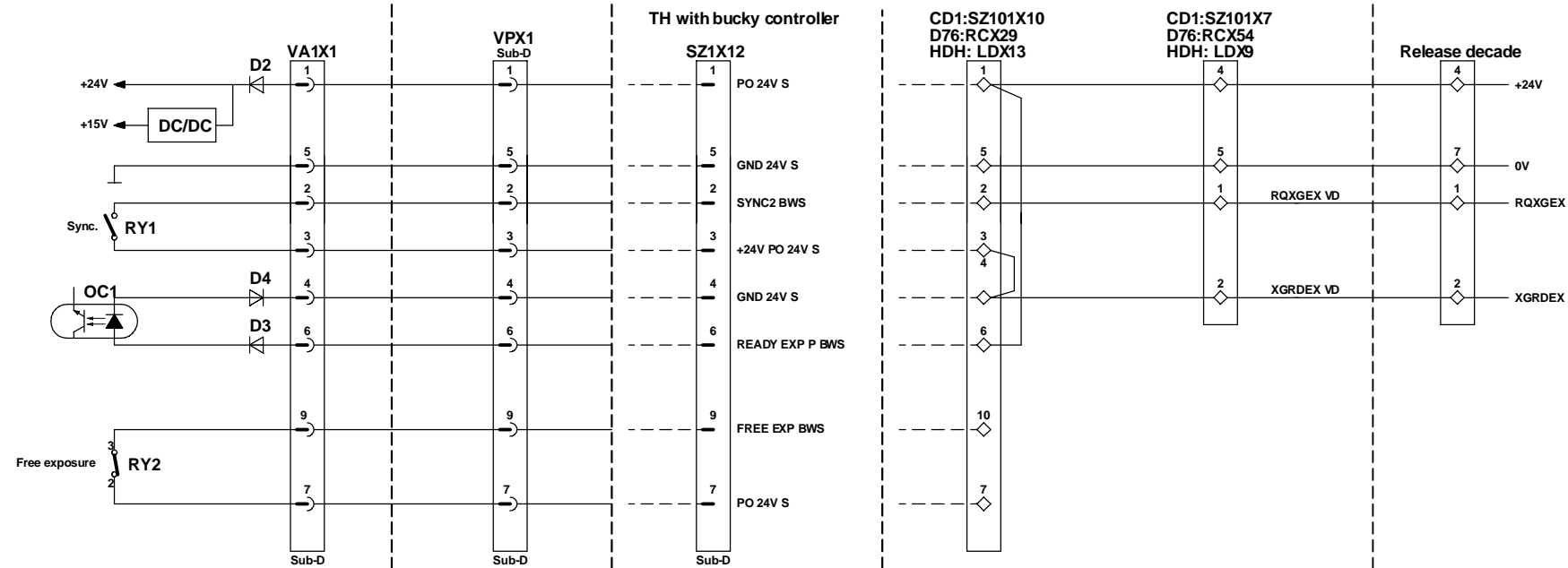
**Schematic diagram
bucky DIAGNOST VE
with bucky unit non sensing
9848 500 20301**

ucky DIAGNOST VE/VT

VP

Examination table

Generator



Switches S1 - S3 are closed in shown position of the VT.

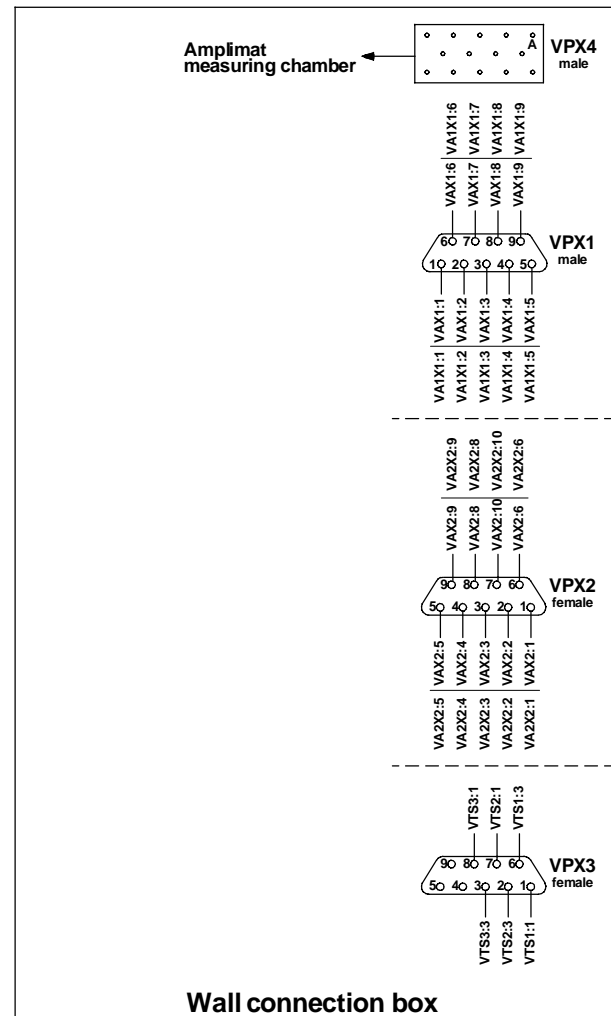
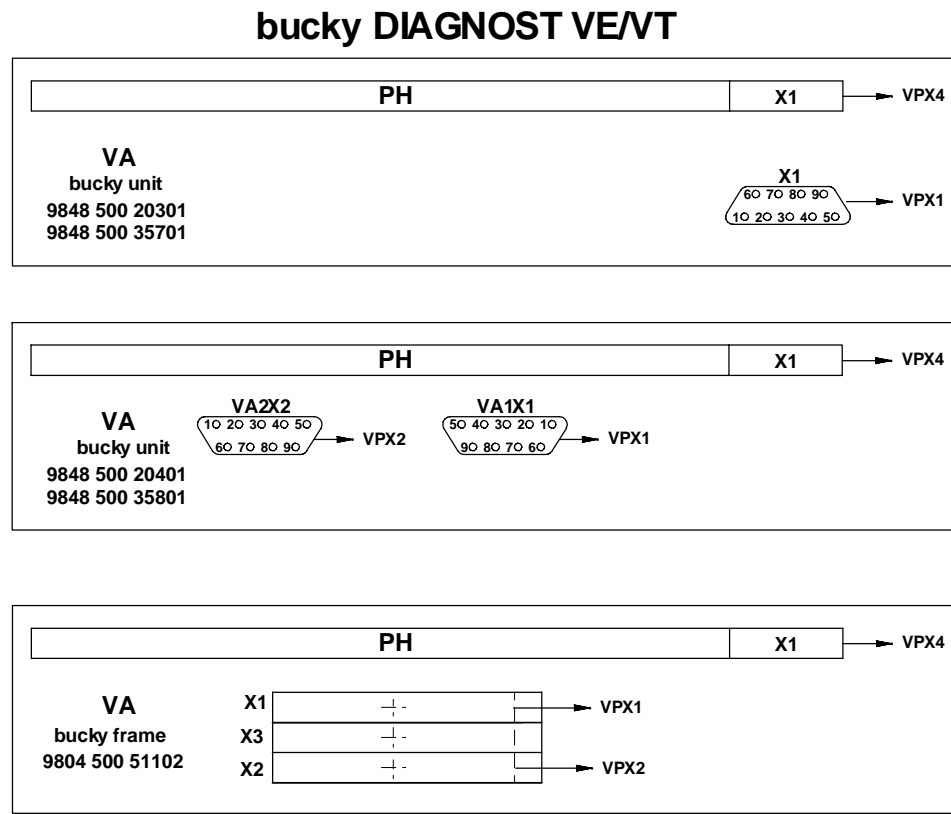
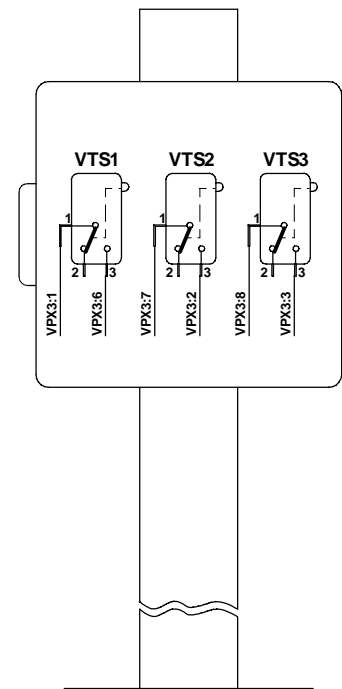
Mnemonics:

BU bucky
CA cassette
EX exposure
FR format
HO horizontal
RD ready
RQ request
SP set point
VD vertical Diagnost
VE vertical
XG X-generator

only with sensing

only VT

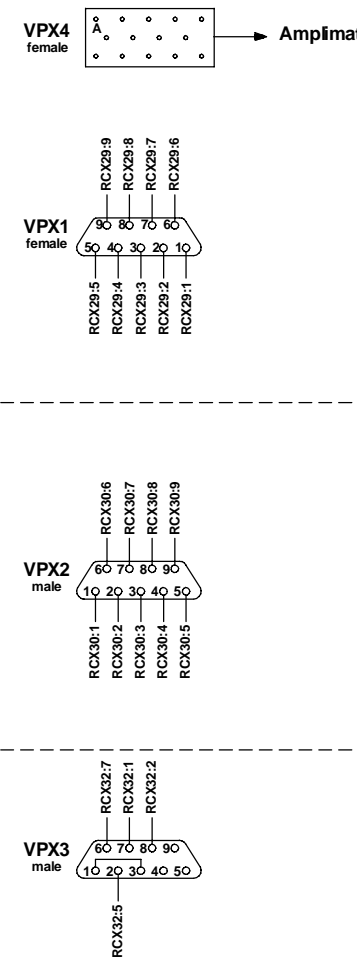
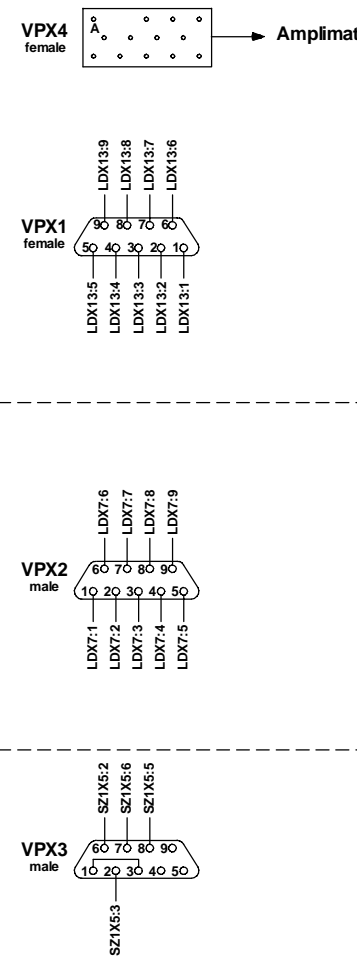
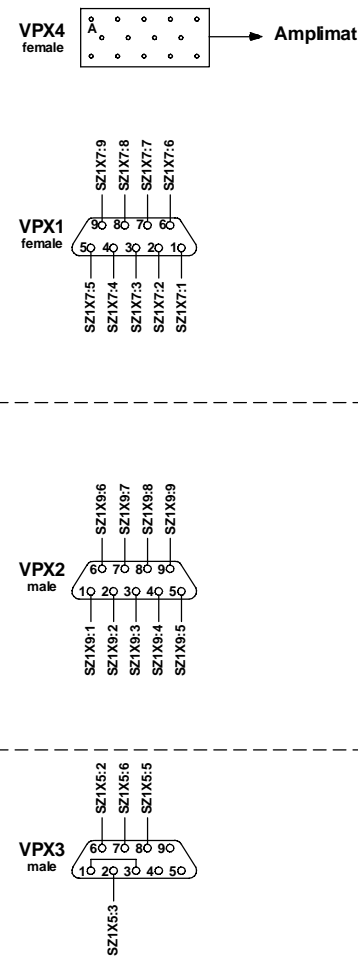
Schematic diagram
bucky DIAGNOST VE/VT
with bucky unit sensing
9848 500 20401



with PBL-Adapter

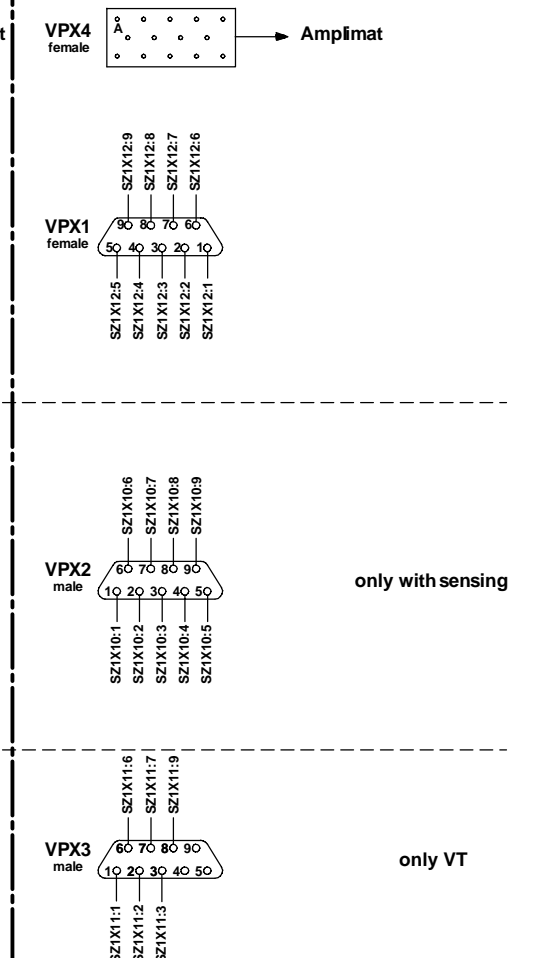
HDH

without PBL-Adapter

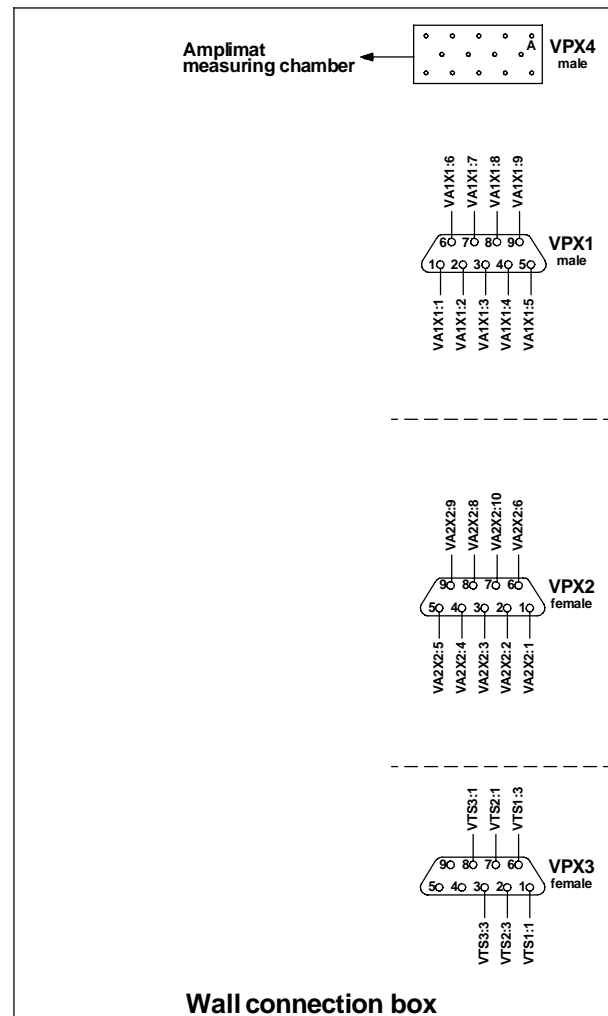
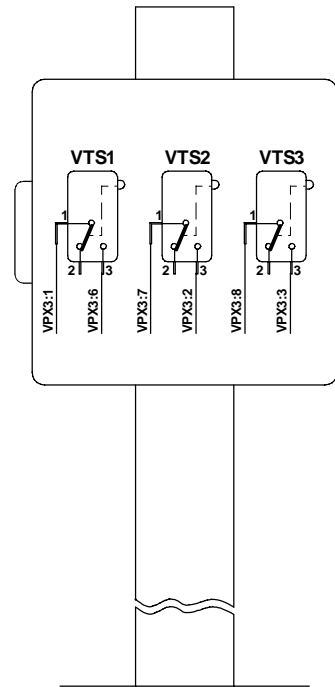
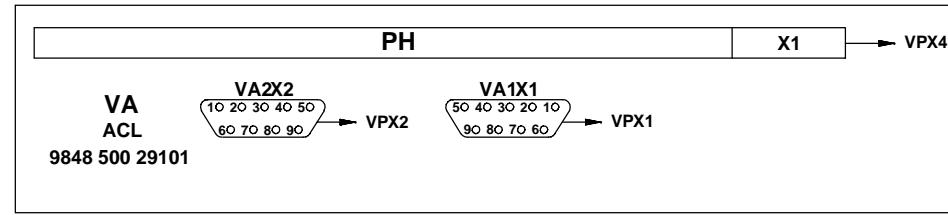


ucky DIAGNOST TH

with bucky controller



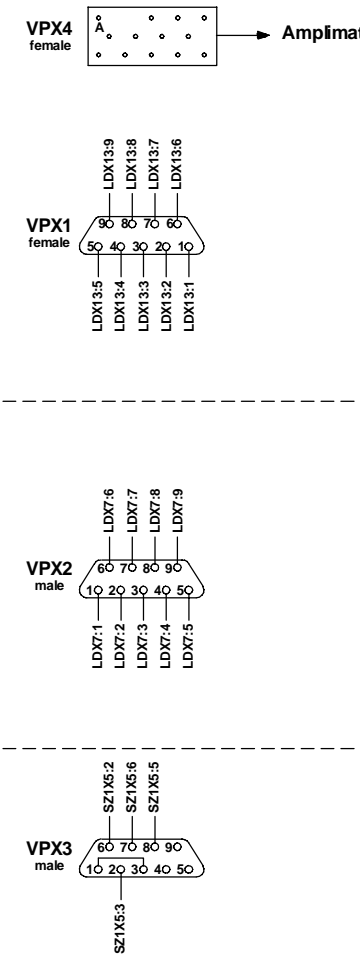
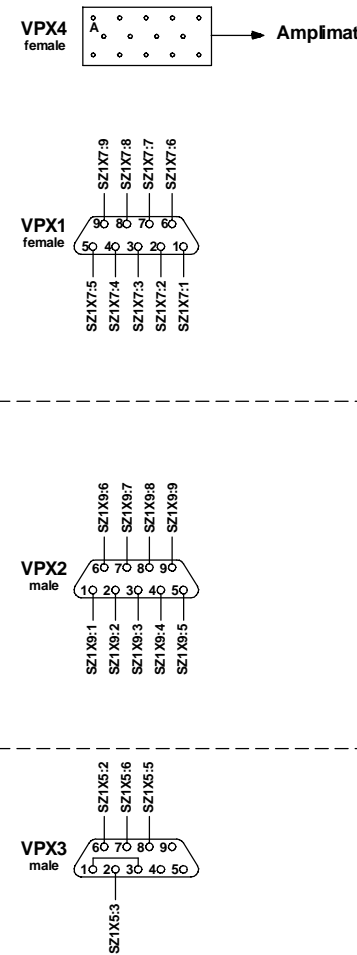
bucky DIAGNOST VE/VT



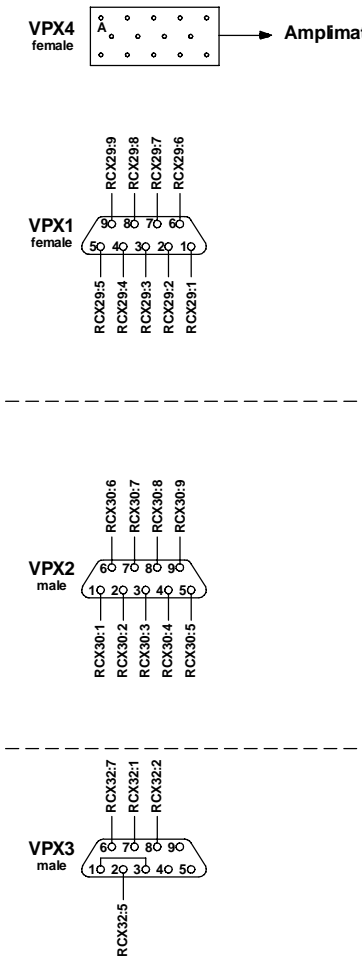
HDH

with PBL-Adapter

without PBL-Adapter

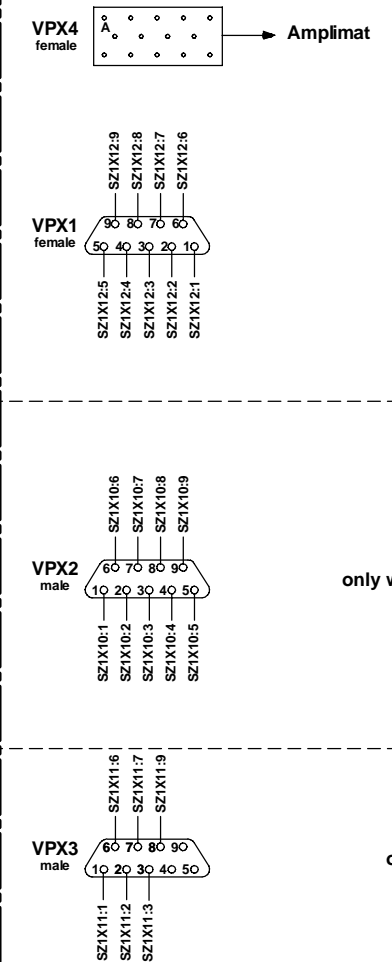


D76



bucky DIAGNOST TH

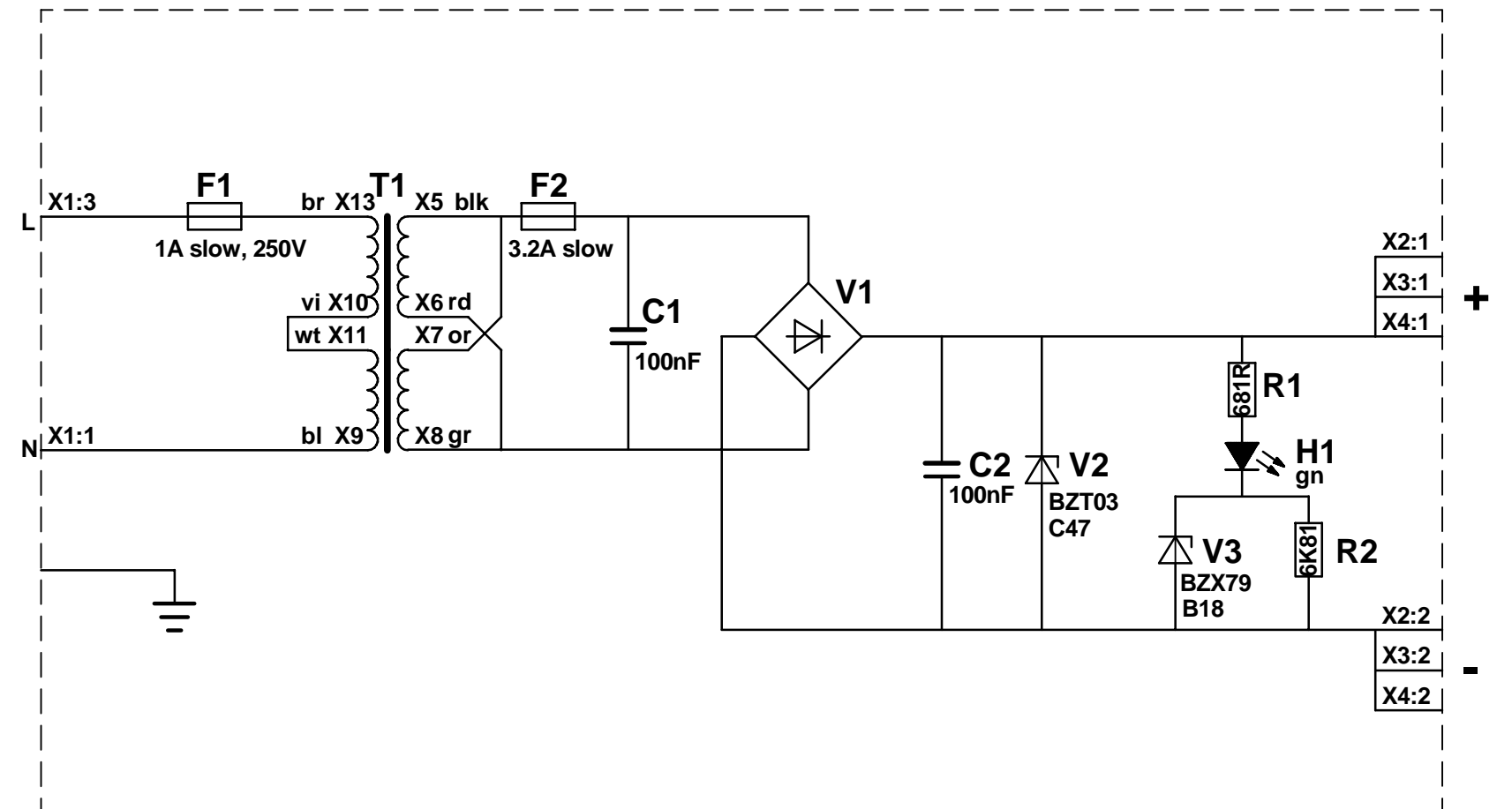
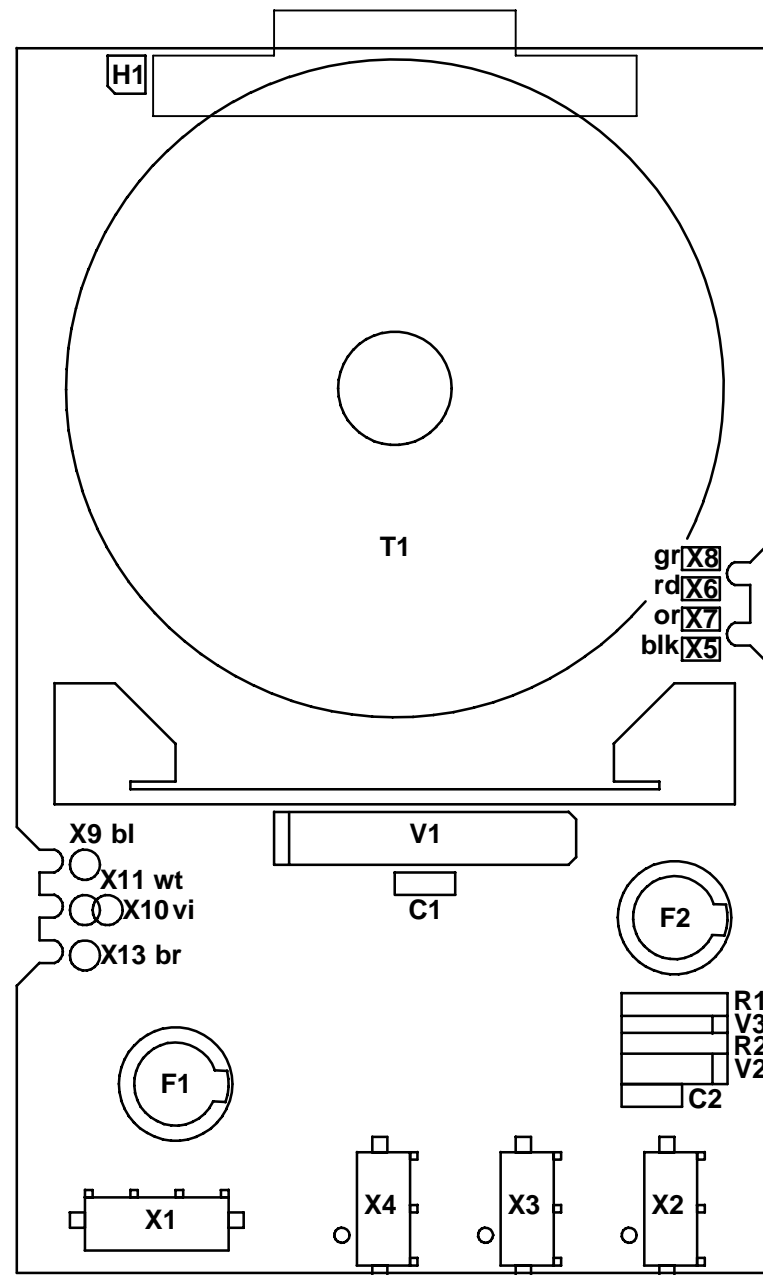
with bucky controller



only with sensing

only VT

Wiring diagram
with automatic cassette loader ACL



A3/A3 95-07-06 Ost.
bD_VE_VT_Z3-1

DIAGNOST 76 plus SEB101
vertical DIAGNOST N1
horizontal DIAGNOST VA5
bucky DIAGNOST VE/VT N1

**LVLE Power supply
for automatic cassette loader
4512 108 07042**